



METROLOGIC INSTRUMENTS, INC.

MetroSelect[®] Configuration Guide
Book 1 of 2

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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.

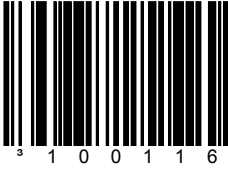


Metrologic manufactures custom OEM scanners, which load the OEM's defaults. For further information on the affects they have on Metrologic default communications protocols refer to Section N, Custom Defaults, in Book 2.





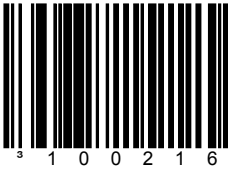
* Enable UPC/EAN



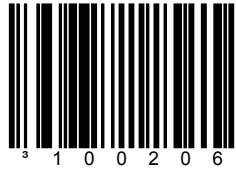
Disable UPC/EAN



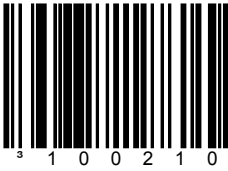
* Enable UPC-A



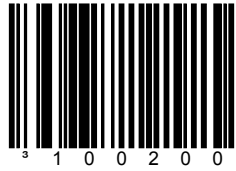
Disable UPC-A



* Enable UPC-E



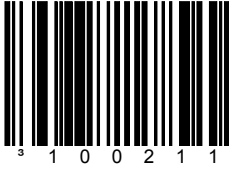
Disable UPC-E



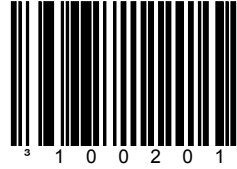
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UPC/EAN

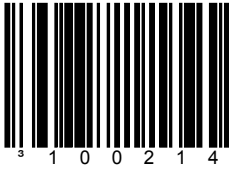
* Enable EAN-13



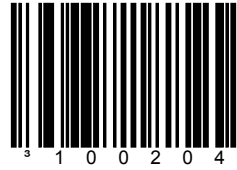
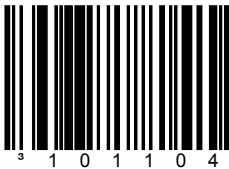
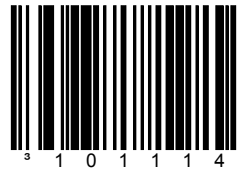
Disable EAN-13



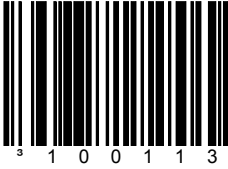
* Enable EAN-8



Disable EAN-8

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

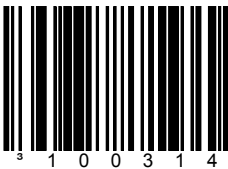
* Enable Code 128



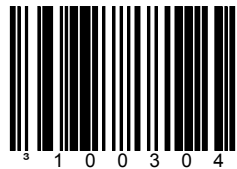
Disable Code 128



Enable
UCC/EAN-28
'C1' Code Formatting



Disable
UCC/EAN-128
'C1' Code Formatting

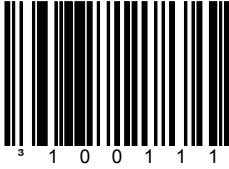


For Coupon Code 128, see Section B, page 5.

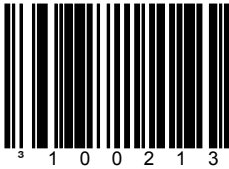
SECTION A

CODE 39

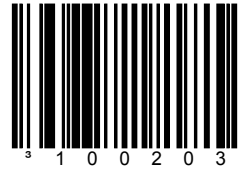
* Enable Code 39



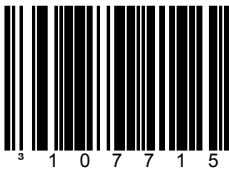
Disable Code 39

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.

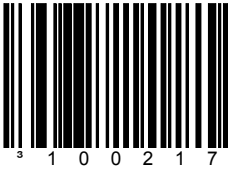
Transmit Mode 43 Check
Digit on Code 39

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

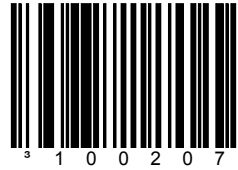
* Do Not Transmit Mode 43
Check Digit on Code 39

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

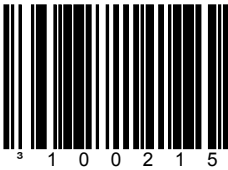
Enable Full ASCII Code 39



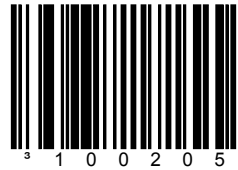
* Disable Full ASCII Code 39



Enable PARAF Support
(Italian Pharmaceutical Codes)



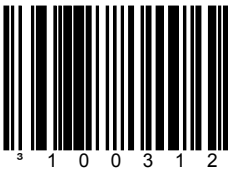
* Disable PARAF Support



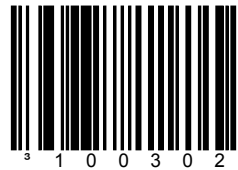
The scanner will convert Code 39 bar codes to PARAF format.

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

Enable TRI-OPTIC Code



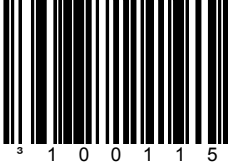
* Disable TRI-OPTIC Code



SECTION A

INTERLEAVED 2 OF 5

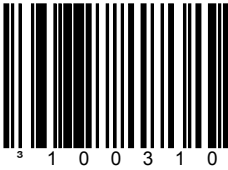
* Enable Interleaved
2 of 5 (ITF)



Disable Interleaved
2 of 5 (ITF)



Enable Mod 10
Check on ITF



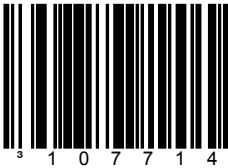
* Disable MOD 10
Check on ITF



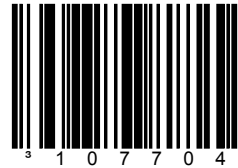
The scanner will only scan
Interleaved 2 of 5 (ITF)
Bar codes that have a
Modulo 10 check digit.

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



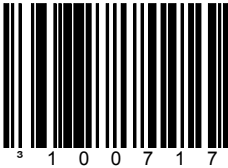
* Do Not Transmit Mod 10
Check Digit on ITF



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.

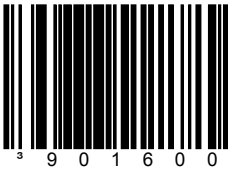
Enable ALT
Check Digit ITF



Disable ALT
Check Digit ITF

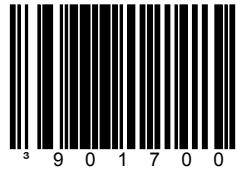


~ ITF Symbol Length
Lock 1 †



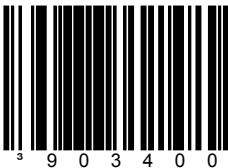
To specify a 1st ITF symbol length lock, scan the above bar code and the appropriate code bytes located in Section M of Book 2. †

~ 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 of Book 2. †

~ ITF Minimum
Symbol Length †



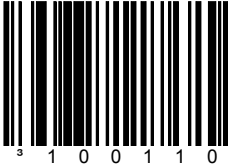
To specify a minimum number of ITF characters to be decoded, scan the above bar code and the appropriate code bytes located in Section M of Book 2. †

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

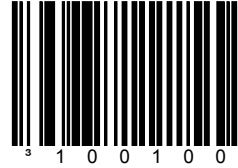
SECTION A

STANDARD 2 OF 5

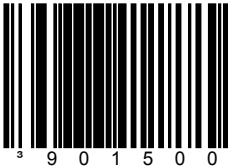
Enable
Standard 2 of 5



* Disable
Standard 2 of 5



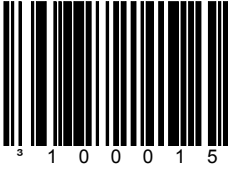
~ Standard 2 of 5
Symbol Length Lock



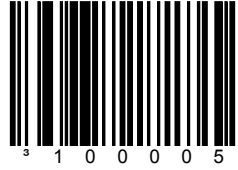
To specify a minimum number of ITF characters to be decoded, scan the above bar code and the appropriate code bytes located in Section M of Book 2.†

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

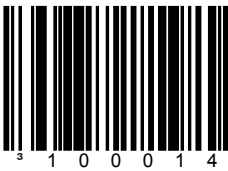
Enable Matrix 2 of 5



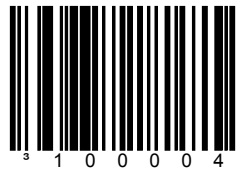
* Disable Matrix 2 of 5



Enable 15 Digit
Airline 2 of 5



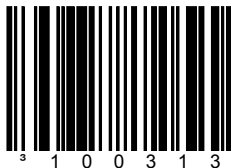
* Disable 15 Digit
Airline 2 of 5



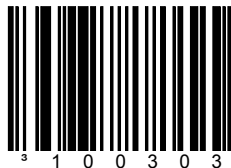
SECTION A

OTHER 2 OF 5 CODES

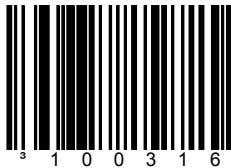
Enable 13 Digit
Airline 2 of 5



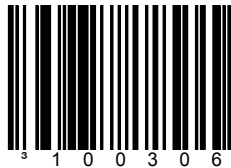
* Disable 13 Digit
Airline 2 of 5



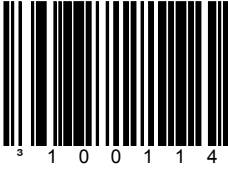
Enable Hong Kong
2 of 5



* Disable Hong Kong
2 of 5



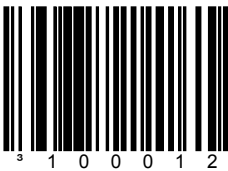
* Enable Codabar



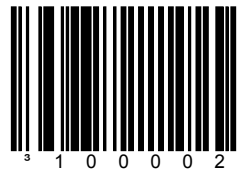
* Disable Codabar



Enable Dual Field Codabar



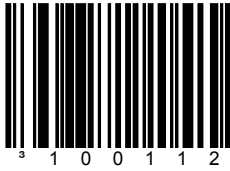
* Disable Dual Field Codabar



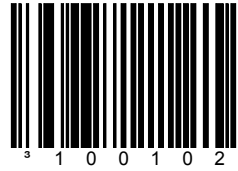
SECTION A

CODE 93 AND CODE 11

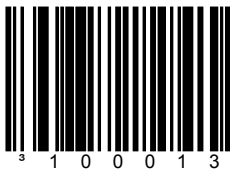
* Enable Code 93



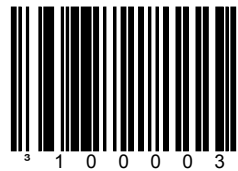
Disable Code 93



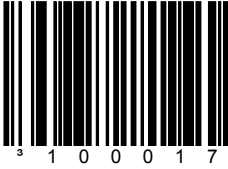
Enable Code 11



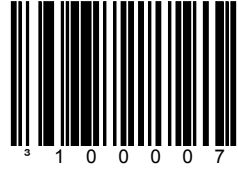
* Disable Code 11



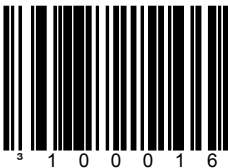
Enable Telepen



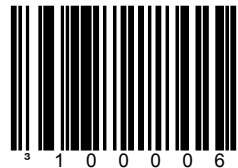
* Disable Telepen



Enable
ALPHA Telepen



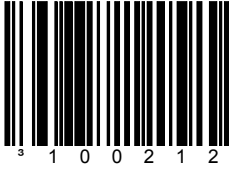
* Disable
ALPHA Telepen



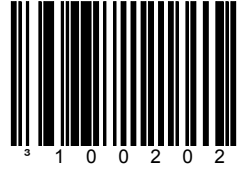
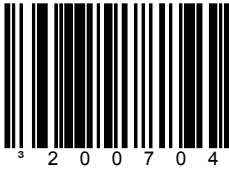
SECTION A

PLESSEY CODES

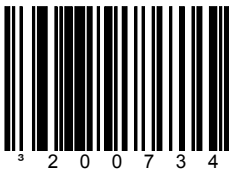
Enable MSI Plessey



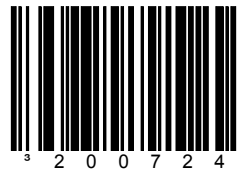
* Disable MSI Plessey

* 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.

Transmit
MSI Plessey Check Digit



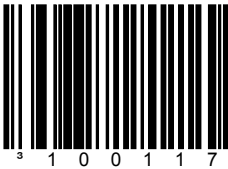
This option works in conjunction with one or both of the Enabled MSI Plessey Mode options.

* Do Not Transmit
MSI Plessey Check Digit

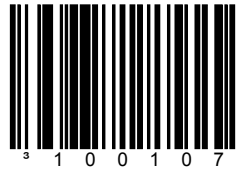


The scanner will not transmit MSI Plessey check digit characters.

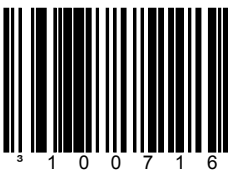
Enable UK Plessey



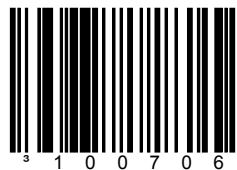
* Disable UK Plessey



Enable UK Plessey
A to X Conversion



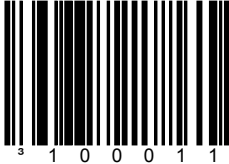
* Disable UK Plessey
A to X Conversion



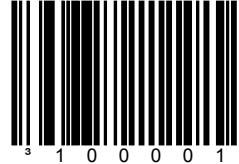
SECTION A

OTHER DECODE FEATURES

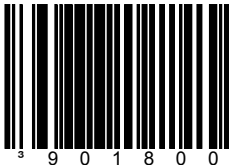
Enable Double Border
Required/Large
Inter-Character Space



* Disable Double Border
Required/Large
Inter-Character Space

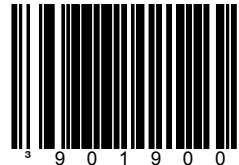


~ Minimum
Symbol Length †



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.†

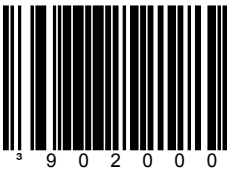
† Refer to the Multi-Code Configuration Method on page x.

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

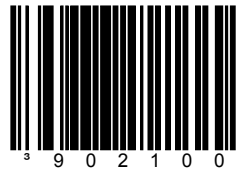
Example:

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.
4. Scan the matching code type lock #1 bar code.
5. Scan the three code bytes that represent the code type.
Refer to the *Code Type Table* in Section M of Book 2.
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.

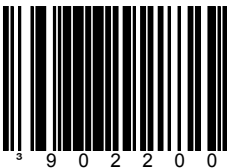
~ Code Length
Lock #1



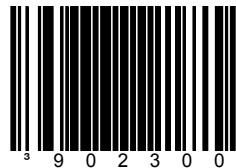
~ Code Type
Lock #1



~ Code Length
Lock #2



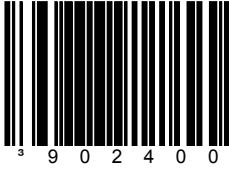
~ Code Type
Lock #2



SECTION A

CONFIGURABLE CODE LENGTHS

~ Code Length
Lock #3



~ Code Type
Lock #3



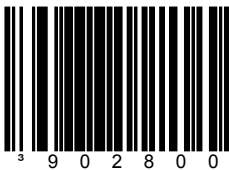
~ Code Length
Lock #4



~ Code Type
Lock #4



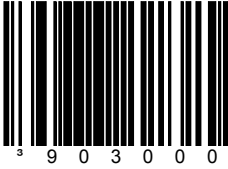
~ Code Length
Lock #5



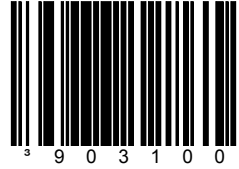
~ Code Type
Lock #5



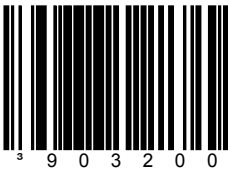
~ Code Length
Lock #6



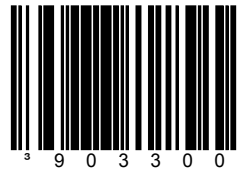
~ Code Type
Lock #6



~ Code Length
Lock #7

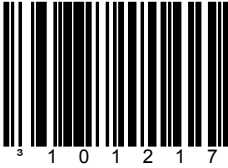


~ Code Type
Lock #7

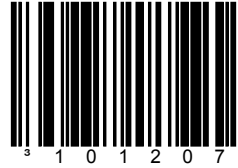




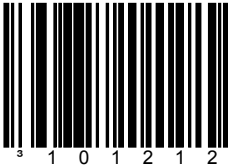
Enable Two Digit Supplements



* Disable Two Digit Supplements

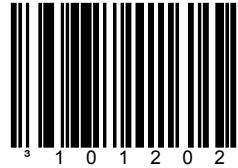


* Enable Two Digit Redundancy



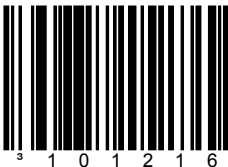
Twice before accepting data, the scanner will scan the bar code plus the two digit add on.

Disable Two Digit Redundancy

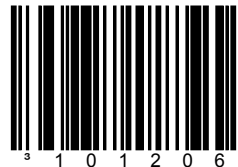


When scanned, will not implement the two digit redundancy feature.

Enable Five Digit Supplements



* Disable Five Digit Supplements



SECTION B

SUPPLEMENTS/REDUNDANCY

Enable Five Digit
Redundancy



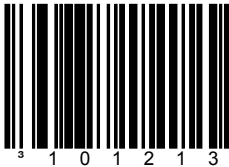
Twice before accepting
data, the scanner will scan
the bar code plus the five
digit add on.

* Disable Five Digit
Redundancy



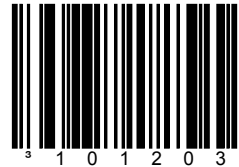
The scanner will not
implement the five digit
redundancy feature.

Supplements
are Required



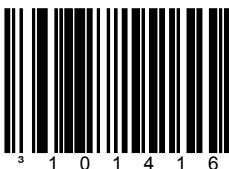
All UPC/EAN labels that are
scanned must have a
supplement.

* Supplements are
not Required

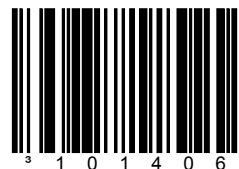


UPC/EAN labels do not
require a supplement to be
scanned.

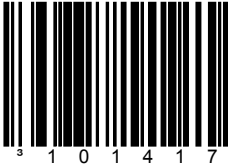
Enable Remote
Supplemental Requirement



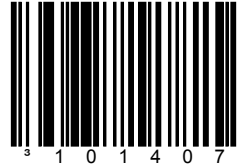
* Disable
Remote Supplemental
Requirement



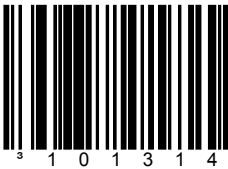
Enable Bookland (978)
Supplement Requirement



* Disable Bookland (978)
Supplement Requirement

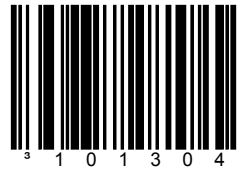


Enable 977 (2 digit)
Supplemental Requirement



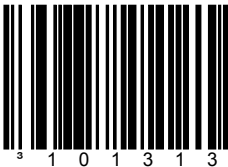
The scanner will require a 2 digit supplement be scanned when an EAN-13 code begins with 977.

* Disable 977 (2 digit)
Supplemental Requirement

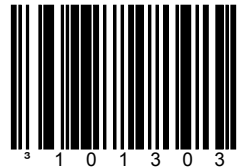


The scanner will not require a 2 digit supplement be scanned whenever an EAN-13 code begins with 977.

Enable 378/379 French
Supplement Requirement



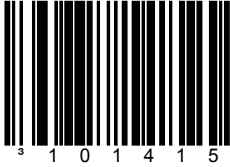
* Disable 378/379 French
Supplemental Requirement



SECTION B

SUPPLEMENTS

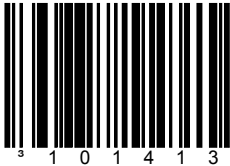
Enable 434/439 German
Supplemental Requirement



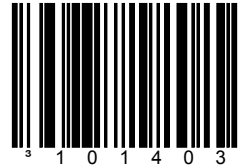
* Disable 434/439
German Supplemental
Requirement



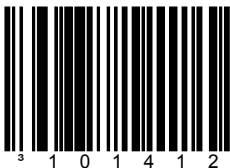
Enable 414/419 German
Supplemental Requirement



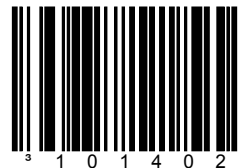
* Disable 414/419 German
Supplemental Requirement



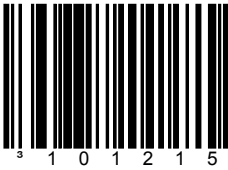
Enable # System 2
Requires Supplements



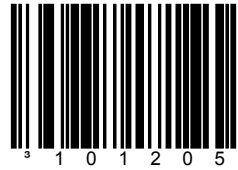
* Disable # System 2
Requires Supplements



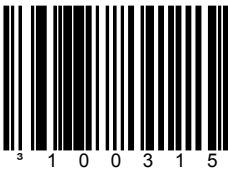
Enable # System 5
Requires Supplements



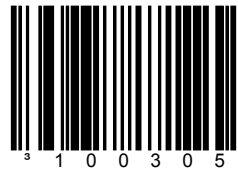
* Disable # System 5
Requires Supplements



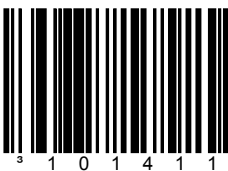
Enable Coupon
Code 128



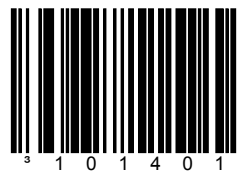
* Disable Coupon
Code 128



Enable Code 128 'JC1'
Extended Code Format



* Disable Code 128 'JC1'
Extended Code Format



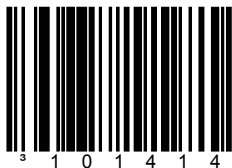
The scanner will transmit a 'JC1' at the beginning of the code 128 portion of the coupon code.

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

SECTION B

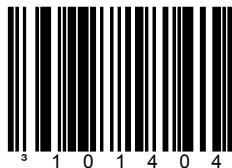
SUPPLEMENTS

Enable 128 Group
Separators



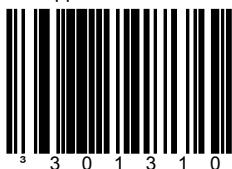
“GS” (1DH) character will be transmitted with coupon Code 128 codes.

* Disable 128 Group
Separators



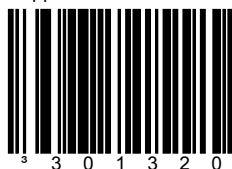
“GS” (1DH) character will not be transmitted with coupon Code 128 codes.

* 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



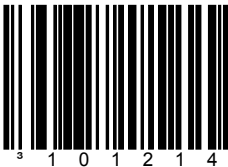
The scanner will allot 200 milliseconds to “find” an add on after a main UPC/EAN bar code has been scanned.

400 msec to Find
Supplemental

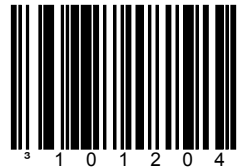


The scanner will allot 400 milliseconds to “find” an add on after a main UPC/EAN bar code has been scanned.

Enable Code ID's with
Supplements



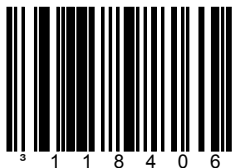
* Disable Code ID's with
Supplements



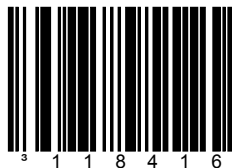
SECTION B

SUPPLEMENTS

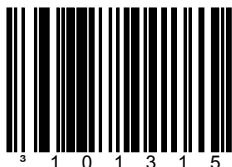
* Beep Once on
Supplements



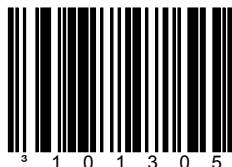
Beep twice on
Supplements



Enable ISBN Check Digit
Transmission

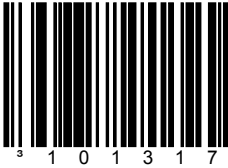


Disable ISBN Check Digit
Transmission

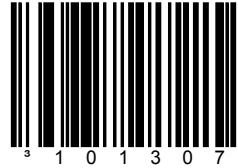


This feature is not
available with all
models.

Enable Bookland to ISBN Conversion

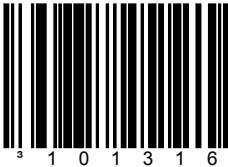


* Disable Bookland to ISBN Conversion

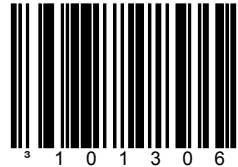


This feature is not available with all models.

Enable ISBN Re-Formatting



* Disable ISBN Re-Formatting



This feature is not available with all models.



* Enable RS-232



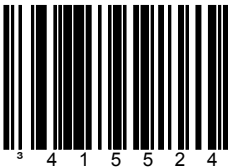
The scanner will work with RS-232 $\pm 12V$ serial output.

Load Keyboard Wedge Defaults



Scan this before selecting Normal or Stand Alone Mode.

Enable Light Pen/Wand Communication



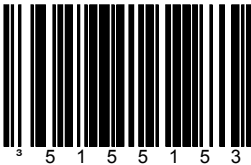
Use this option if a scanner is used in place of a light pen.

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

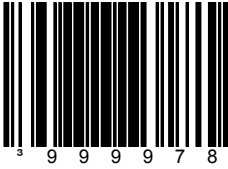
Enable IBM 46xx
Communication

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



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

Load USB Defaults

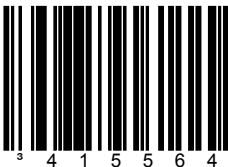


Enable
No Communication Mode

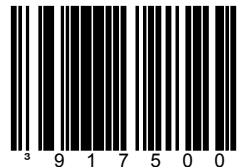


Select this option if the scanner does not interface with the host device.

Reserved

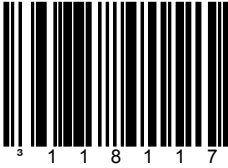


Reserved





Allow Configuration Mode
on Power-Up



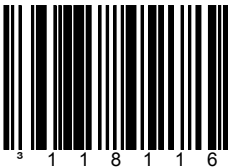
The scanner can only enter MetroSet® mode before any bar codes are scanned.

* Allow Configuration
Mode Anytime



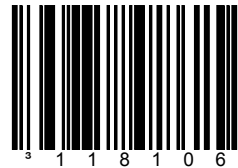
Allow MetroSet® configuration at any time.

Allow Configuration Codes
on Power Up



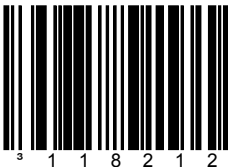
Once a product bar code is scanned after power-up, the scanner will not accept configuration bar codes.

* Allow Configuration
Codes Anytime

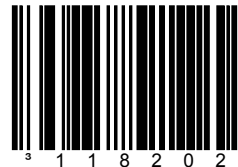


Allows scanning of configuration bar codes any time.

Enable
Single Code Programming



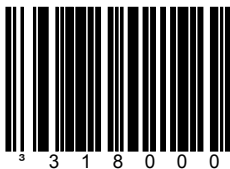
Disable
Single Code Programming



SECTION D

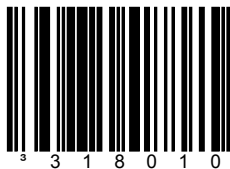
SCAN BUFFERS

* 1 Scan Buffer



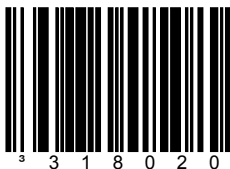
The scanner will scan one bar code in the scan field and not scan again until the bar code is removed from the scan field for the duration of the same symbol time out.

2 Scan Buffers



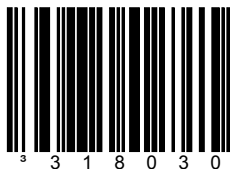
The scanner will scan 2 bar codes in the scan field one time each. These 2 bar codes will not be scanned again until they are removed from the scan field for the duration of the same symbol time out.

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



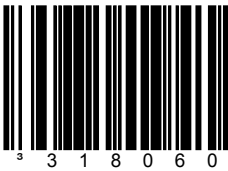
Same function as 2 Scan Buffers, but 5 bar codes are in the scan field.

6 Scan Buffers



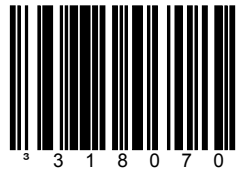
Same function as 2 Scan Buffers, but 6 bar codes are in the scan field.

7 Scan Buffers



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

8 Scan Buffers

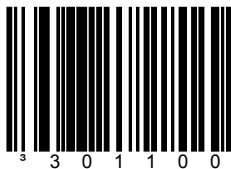


Same function as 2 Scan Buffers, but 8 bar codes are in the scan field.

SECTION D

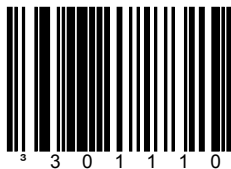
REDUNDANT SCANS

* 0 Redundant Scans



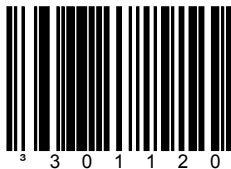
Requires 1 good decode for a "good scan".

1 Redundant Scans



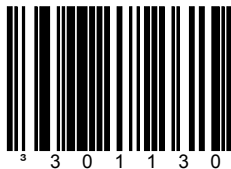
Requires 2 consecutive decodes of the same bar code data for a "good scan".

2 Redundant Scans



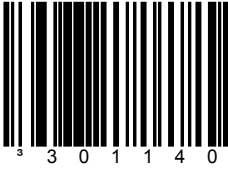
Requires 3 consecutive decodes of the same bar code data for a "good scan".

3 Redundant Scans



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

4 Redundant Scans



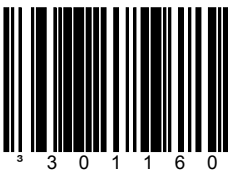
Requires 5 consecutive decodes of the same bar code data for a "good scan".

5 Redundant Scans



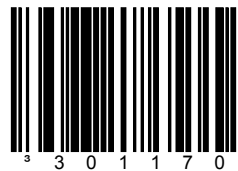
Requires 6 consecutive decodes of the same bar code data for a "good scan".

6 Redundant Scans



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

7 Redundant Scans

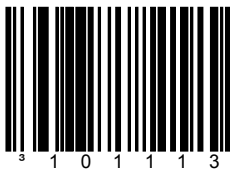


Requires 8 consecutive decodes of the same bar code data for a "good scan".

SECTION D

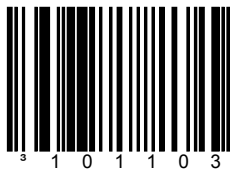
MISCELLANEOUS DECODE FEATURES

* Enable MAJIC

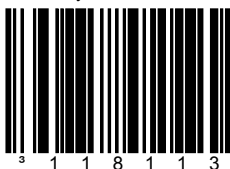


The Metrologic Algorithm for Joining Incomplete Codes (MAJIC) aids in deciphering damaged or incomplete bar codes. Enable for more aggressive decoding.

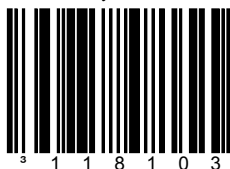
Disable MAJIC



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.

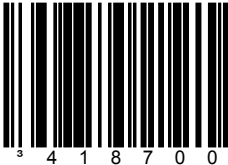
* Optimize for
Low Density Codes †



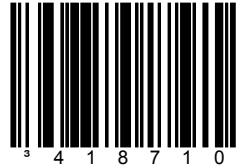
Optimize for
High Density Codes †



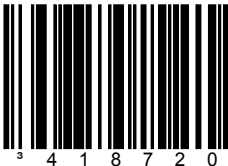
Fixed for
High Density Codes †



Fixed for
Medium Density Codes †



Fixed for
Low Density Codes †



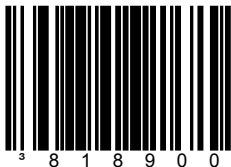
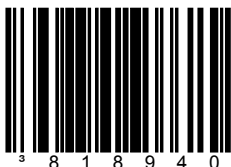
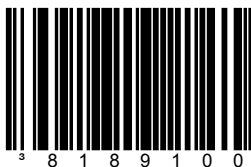
† For use with
omnidirectional
scanners only.

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).

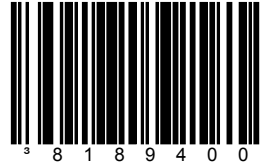
No Same Symbol Time Out

Same Symbol Time Out
100 msecsSame Symbol Time Out
200 msecs* Same Symbol Time Out
500 msecs

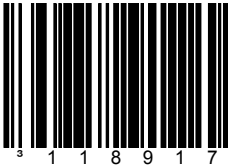
Same Symbol Time Out
1200 msecs



Same Symbol Time Out
2000 msecs



Infinite
Same Symbol Time Out

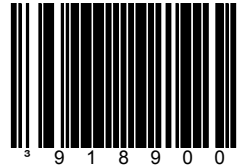


The scanner will not
repetitively scan the same
bar code.



This option
overrides the
symbol rescan
time-outs.

~ Variable
Same Symbol Time Out

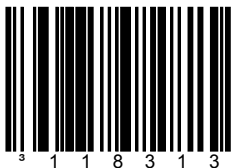


Using the Multi-Code
Method (page x), scan this
bar code and a code byte
sequence from Section M of
Book 2 to set the same
symbol time-out duration.
Values range from 001 to
127 (50 to 6350 msecs).

SECTION D

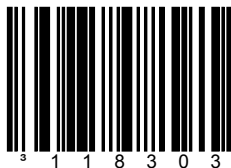
LED OPTIONS

Flash Green LED if
Rescan Allowed

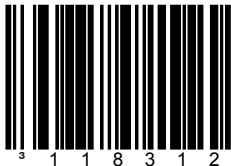


This indicates same symbol
timeout has elapsed.

* Do not flash Green LED
if Rescan Allowed

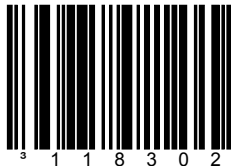


Reverse LED Functions



Red = Laser On
Green = Good Read

* Normal LED Functions



Green = Laser On
Red = Good Read

* Normal Tone



Optional Tone 1



Optional Tone 2



Optional Tone 3



Optional Tone 4



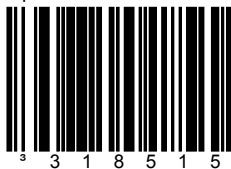
Optional Tone 5



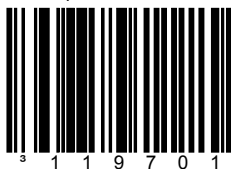
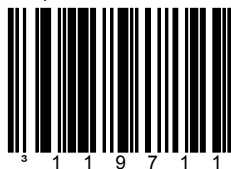
SECTION D

BEEPER OPTIONS

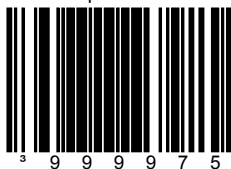
Optional Tone 6



No Beep

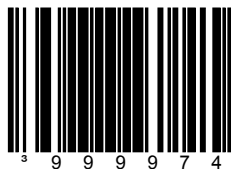
* Enable Switch
Beep Tones †† For MS7220 and MS7320
series scanners.Disable Switch
Beep Tones †

Next Beep Tone ††



†† For MS7600 Series only.

Next Volume ††



SECTION D

BEEPER OPTIONS

* Loudest Volume ††



†† For the MS7600 series only.

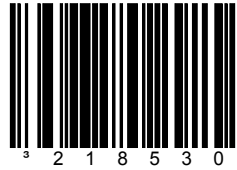
2nd Loudest Volume ††



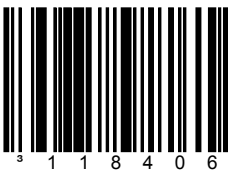
3rd Loudest Volume ††



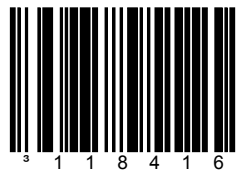
No Volume ††



* Beep Once on
Supplements



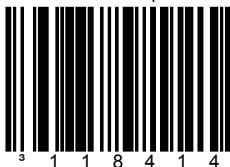
Beep Twice on
Supplements



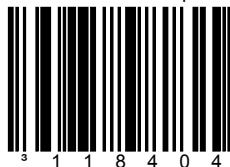
SECTION D

BEEPER OPTIONS

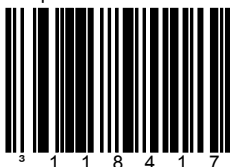
Enable Fast Beep



* Disable Fast Beep



Beep on BEL Command

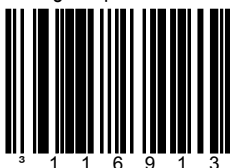


* Ignore BEL Command

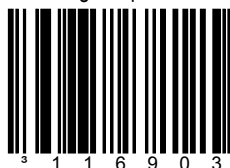


The scanner beeps when it receives a BEL character from the host. If a number is sent within 200 msec before the BEL character, then the scanner will beep that number of times.

Enable Light Pen Toggle During Beep



* Disable Light Pen Toggle During Beep

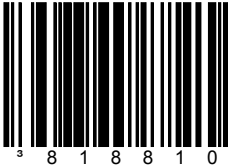


The scanner will beep and toggle the light pen data line on a successful decode. This drives a "good read" indicator.

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.

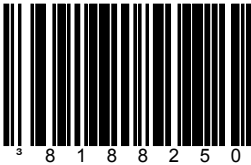
* 1 msec
Inter-Character Delay



10 msec
Inter-Character Delay



25 msec
Inter-Character Delay



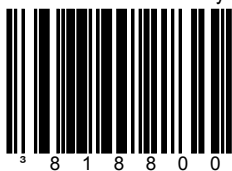
~ Variable msec
Inter-Character Delay



Scan this bar code and a sequence of code bytes in Section M of Book 2 to set the delay between characters sent to the host system. Delay range can be set from 1 to 255 msec. Refer to the *Multi-Code Configuration Method* on page x.

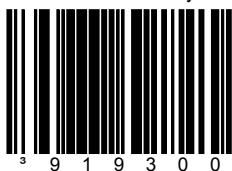
SECTION D INTER-CHARACTER DATA TRANSMISSION DELAYS

No Inter-Character Delay

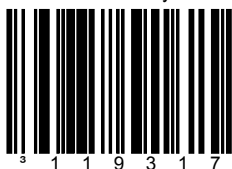


INTER-RECORD DATA TRANSMISSION DELAYS

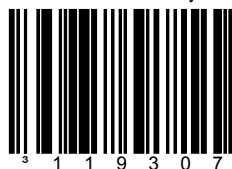
~ Variable
Inter-Record Delay



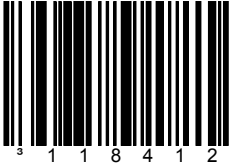
Turn Off Laser During
Inter-Record Delay



* Leave Laser On During
Inter-Record Delay



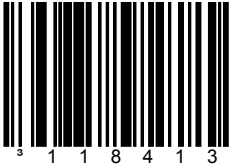
Enable
Communications Time Outs



* Disable Communications
Time Outs

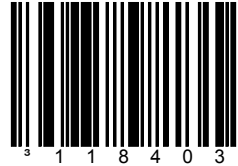


* Beep Before Transmit



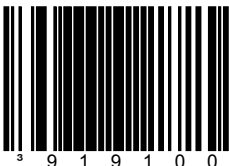
Scanner will beep before
each label is transmitted.

Beep After Transmit

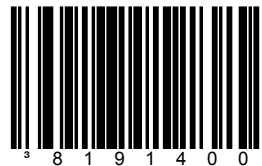


Scanner will beep after
each label is transmitted.

~ Variable Communications
Time Out



* Default Communications
Time Out (2 secs)



SECTION D

COMMUNICATION TIME OUT OPTIONS

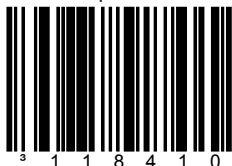
Short Communications
Time Out (1 sec)



Long Communications
Time Out (4 secs)



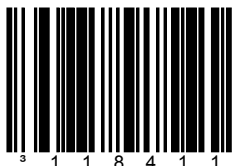
Three Beeps on Time Out



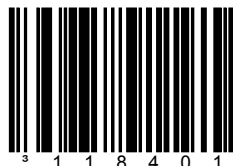
* No Beeps on Time Out



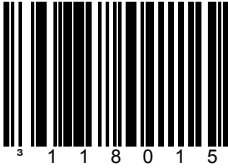
Razzberry Tone on
Time Out



* No Razzberry Tone
on Time Out

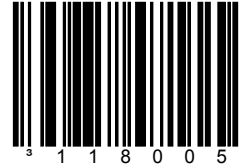


Enable "D/E" Disable
Command



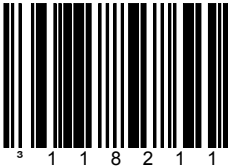
The scanner will disable scanning after it receives and ASCII "D" from the host device. It will enable scanning when it receives an ASCII "E".

* Disable "D/E" Disable



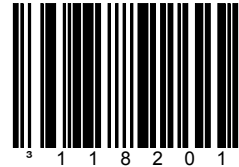
Do not monitor D/E
commands.

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

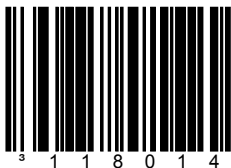


Do not monitor Z/R
commands.

SECTION D

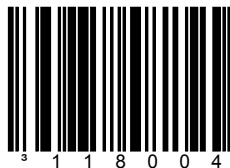
HOST SCANNER COMMANDS

Enable "F/L" Laser Command



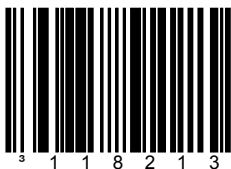
The scanner will turn off the laser after receiving an ASCII "F" character. The laser will turn on after it receives an ASCII "L" character.

* Disable "F/L" Laser Command



Do not monitor "F/L" commands.

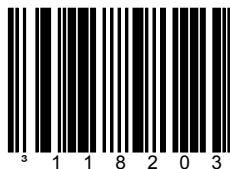
Motor "On/Off" Using M/O Commands †



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

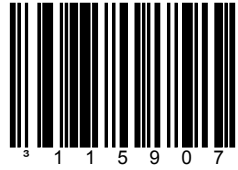


Do not monitor the M/O commands.

Enable I Command



Disable I Command



Enable i Command



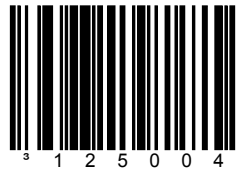
Disable i Command



Enable SI/SO Command



Disable SI/SO Command

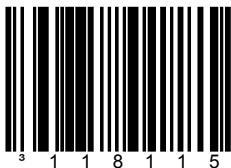


SECTION D

HOST SCANNER COMMANDS

Use

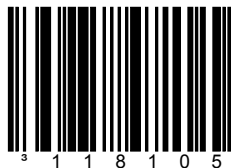
DTR Scan Disable



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.

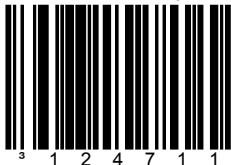
* Do not use

DTR Scan Disable

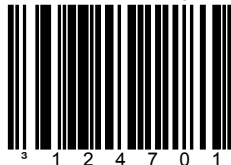


Do not monitor the DTR input.

Enable Pass Through

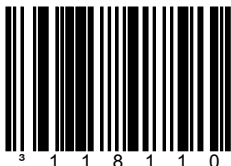


Disable Pass Through

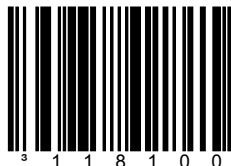


The AUX scanner must be configured for the same Baud rate as the host, with STX prefix, Nixdorf ID characters and CR Terminator enabled.

Activate on DC2 Character



* Do Not Activate on DC2 Character



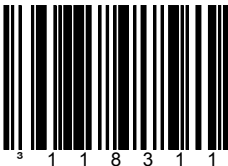
Transmit "NO READ" if
DC2 Activated



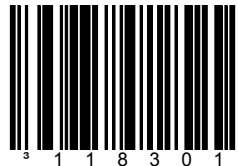
Do Not Transmit "NO
READ" if DC2 Activated



No Green LED During
"NO READ" Xmit



* Green LED During
"NO READ" Xmit



SECTION D

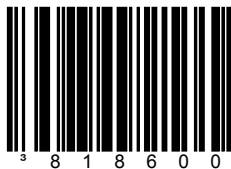
POWER SAVE MODES

Always Power Save Mode†



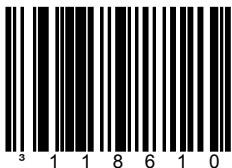
The scanner enters power save mode immediately after power-up and after each bar code scanned. †

No Power Save Mode†

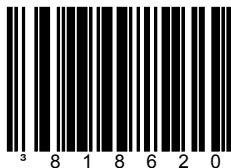


The scanner will never enter power save mode. †

† 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. †

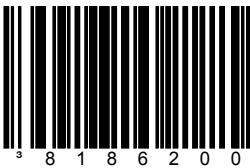
Power Save in 10 Minutes †



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

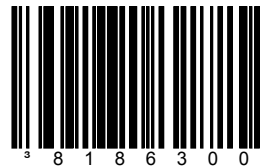
† For use with omnidirectional scanners only.

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.

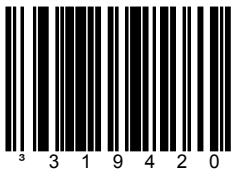
Blink
Power Save Mode ††



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 ††

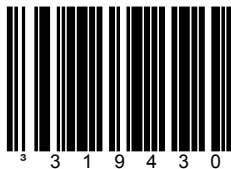


Turns the laser OFF after a
programmed period of non-
use. ††

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 ††

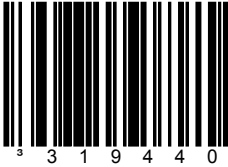


Turns the laser and motor
OFF after a programmed
period of non-use. ††

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

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

Dual #2
Power Save Mode ††

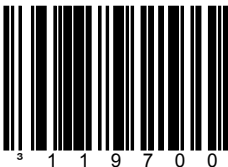


Turns the laser OFF after a programmed period of non-use then turns the motor OFF after thirty-minute intervals.

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

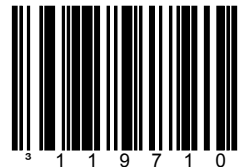
The MS7600 will “wake if the IR detects movement

* Enable
Power Save Switch



For MS7220 and MS7320 scanners only.

Disable
Power Save Switch

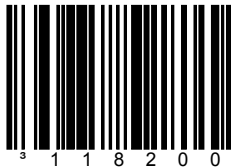


For MS7220 and MS7320 scanners only.

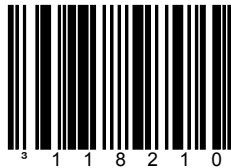
SECTION D

POWER SAVE MODES

* Enable Bar Code
Absence Detection

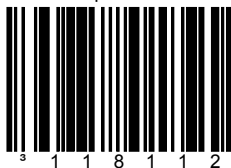


Disable Bar Code
Absence Detection

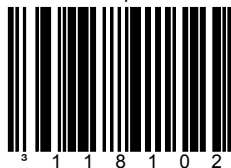


MISCELLANEOUS FEATURES

Enable Japan Mode



* Disable Japan Mode



Scanability ON

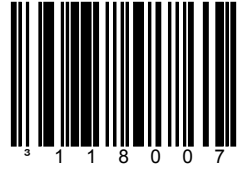


The scanner will enter scanability test mode.

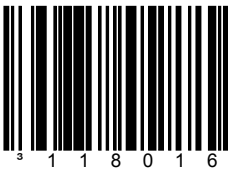


Do not enable unless instructed by a Metrologic representative.

* Scanability OFF



Scan Count Mode ON

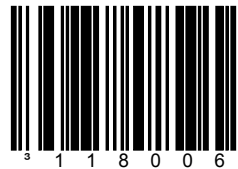


The scanner will enter scan count test mode and the scanner's firmware number will transmit to the host.



Do not enable unless instructed by a Metrologic representative.

* Scan Count Mode OFF





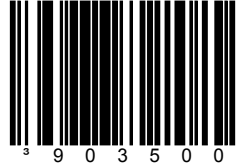


Scan the *Enter/Exit Configuration Mode* bar code before trying to set this feature. Please refer to the Multi-Code method on page x.

Enter/Exit
Configuration Mode

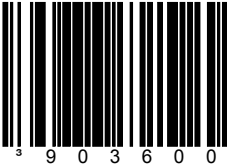


~ Configurable Prefix
Character #1



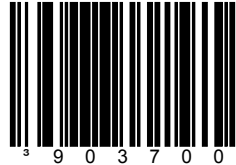
A prefix ID can be added and assigned for data transmission. Use this code with a 3-code byte sequence from Section M of Book 2 that represents the desired character.

~ Configurable Prefix
Character #2



Assigns a 2nd configurable prefix character.

~ Configurable Prefix
Character #3



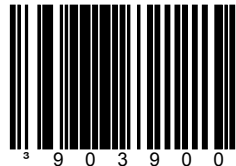
Assigns a 3rd configurable prefix character.

~ Configurable Prefix
Character #4



Assigns a 4th configurable prefix character.

~ Configurable Prefix
Character #5

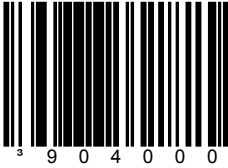


Assigns a 5th configurable prefix character.

SECTION E

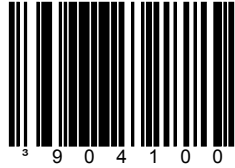
CONFIGURABLE PREFIXES, ALL DATA

~ Configurable Prefix
Character #6



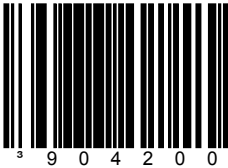
Assigns a 6th configurable prefix character.

~ Configurable Prefix
Character #7



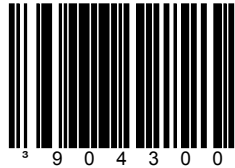
Assigns a 7th configurable prefix character.

~ Configurable Prefix
Character #8



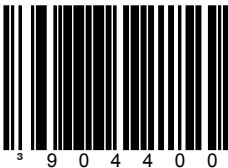
Assigns a 8th configurable prefix character.

~ 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

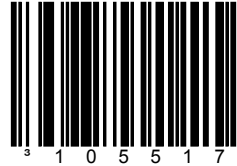


User configured, code specific ID bytes are transmitted before the data.



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

Use Configurable Code ID Bytes as Suffixes



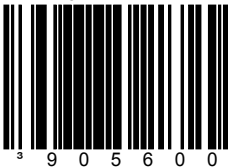
User configured, code specific ID bytes are transmitted after the data.



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

IDENTIFIERS CHARACTER

~ Configurable UPC-A ID †



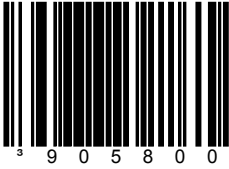
~ Configurable UPC-E ID †



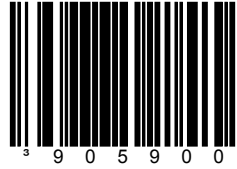
† While using the Multi-Code method, scan this bar code followed by the 3 code byte codes in Section M of Book 2 that represent a unique ID character to be associated with this bar code type. (Refer to the *Multi-Code Method* on page x.)

SECTION E CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

~ Configurable EAN-8 ID †

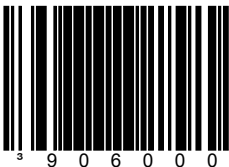
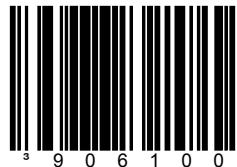


~ Configurable EAN-13 ID †



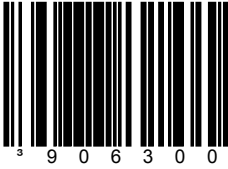
† While using the Multi-Code method, scan this bar code followed by the 3 code byte bar codes in Section M of Book 2 that represent a unique ID character to be associated with this bar code type. (Refer to the *Multi-Code Method* on page x.)

~ Configurable Code 39 ID †

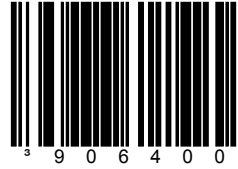
~ Configurable
Code 128 ID †

SECTION E CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

~ Configurable Code 93 ID †

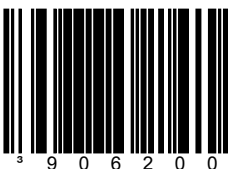


~ Configurable Code 11 ID †

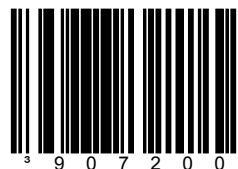


† While using the Multi-Code method, scan this bar code followed by the 3 code byte bar codes in Section M of Book 2 that represent a unique ID character to be associated with this bar code type. (Refer to the Multi-Code method on page x.)

~ Configurable Telepen ID †

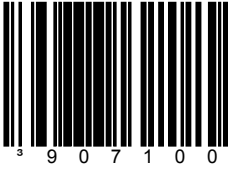


~ Configurable
TRI-OPTIC ID †

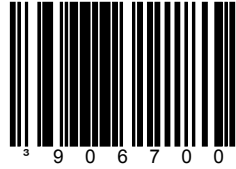


SECTION E CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

~ Configurable
Standard 2 of 5 ID †

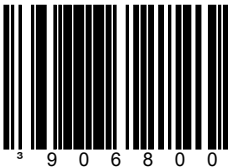


~ Configurable
Interleaved 2 of 5 ID †

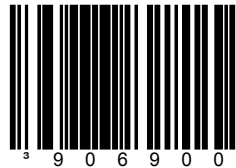


† While using the Multi-Code method, scan this bar code followed by the 3 code byte bar codes in Section M of Book 2 that represent a unique ID character to be associated with this bar code type. (Refer to the *Multi-Code method* on page x.)

~ Configurable
Matrix 2 of 5 ID †



~ Configurable
Airline 2 of 5 ID †



SECTION E CONFIGURABLE ID CHARACTERS CODE SPECIFIC

~ Configurable
MSI Plessey ID †

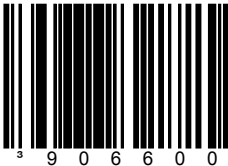


~ Configurable
UK Plessey ID†

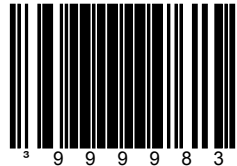


† While using the Multi-Code method, scan this bar code followed by the 3 code byte bar codes in Section M of Book 2 that represent a unique ID character to be associated with this bar code type. (Refer to the *Multi-Code method* on page x.)

~ Configurable
Codabar ID †



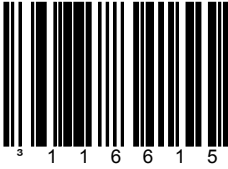
* Clear all Configurable
Code Specific ID's †



SECTION E

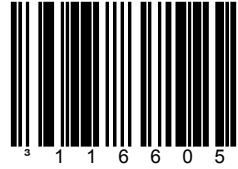
STANDARD PREFIX CHARACTERS

Enable STX Prefix



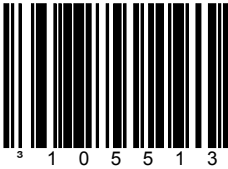
The scanner will transmit a **Start of TeXt** (ASCII 02H) before each bar code.

* Disable STX Prefix

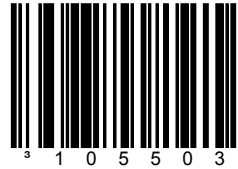


Will not transmit a **Start of TeXt** (ASCII 02H) before each bar code.

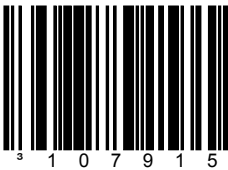
Enable Rockford-Thompson Mode



* Disable Rockford-Thompson Mode

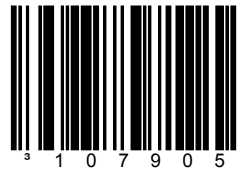


Enable AIM ID Characters



The scanner will transmit AIM symbology identifiers.

* Disable AIM ID Characters

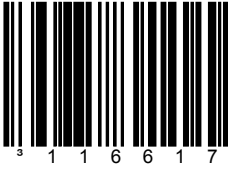


The scanner will not transmit AIM symbology identifiers.



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:

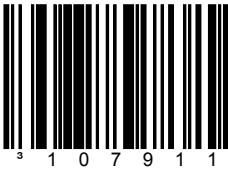
- A (UPC-A),
- E0 (UPC-E),
- F (EAN-13), and
- FF (EAN-8).

* 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

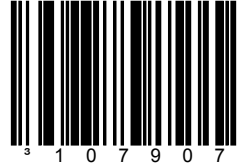
STANDARD PREFIX CHARACTERS

Enable Nixdorf ID
Characters



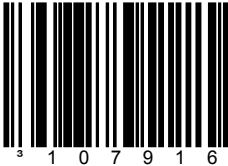
This option transmits code
identifiers before each bar
code for many
Siemens/Nixdorf registers.

* Disable Nixdorf ID
Characters



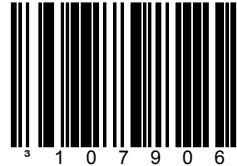
This option will not transmit
Siemens/Nixdorf code
identifiers.

Enable SANYO ID
Characters



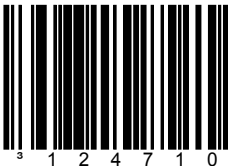
Transmit Sanyo ID
Characters.

* Disable SANYO ID
Characters

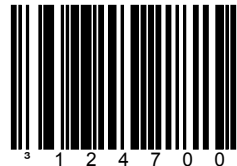


Do not transmit Sanyo ID
Characters.

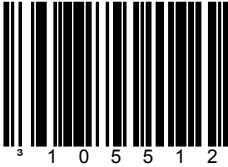
Enable TEC Register
Format ID Characters



Disable TEC Register
Format ID Characters

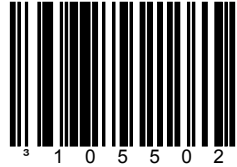


Enable Manufacturer ID Prefix



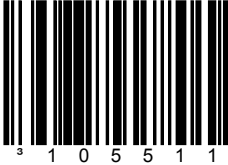
Transmits "METROLOGIC" before all bar code data to identify the scanner as a Metrologic Scanner.

* Disable Manufacturer ID Prefix

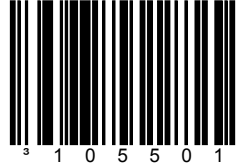


The scanner will not transmit the manufacturer identification string.

Enable "C" Prefix



* Disable "C" Prefix



Enable "\$" Prefix ID for UPC/EAN



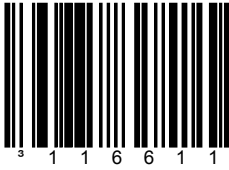
* Disable "\$" Prefix ID for UPC/EAN



SECTION E

STANDARD PREFIX CHARACTERS

Enable Tab Prefix



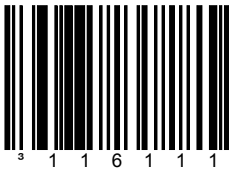
The scanner will transmit a TAB (ASCII 09H) before each bar code.

* Disable Tab Prefix



The scanner will not transmit a TAB.

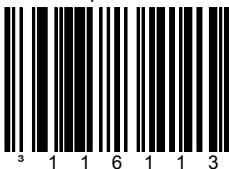
Enable SNI Beetle Mode



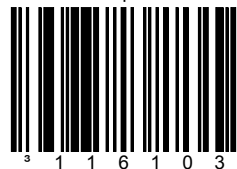
* Disable SNI Beetle Mode



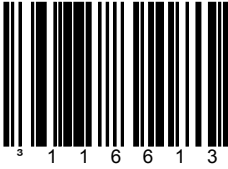
Enable Cipher 1021 IDs



* Disable Cipher 1021 IDs

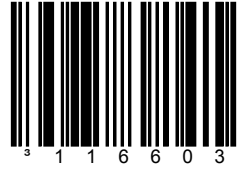


* Enable CR Suffix



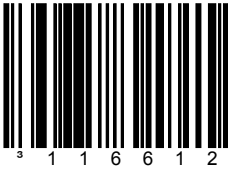
The scanner will transmit a **Carriage Return** after each bar code.

Disable CR Suffix



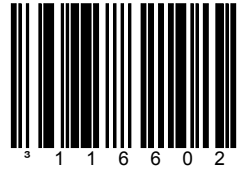
The scanner will not transmit a **Carriage Return** after each bar code.

* Enable LF Suffix



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

Disable LF Suffix

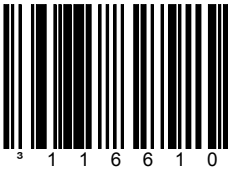


The scanner will not transmit a **Line Feed** after each bar code.



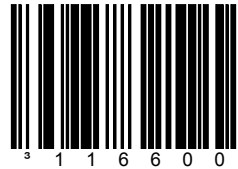
This feature is Disabled when keyboard wedge defaults are loaded.

Enable Tab Suffix



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

* Disable Tab Suffix

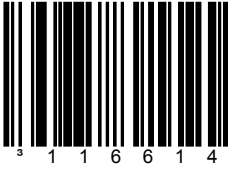


The scanner will not transmit a **TAB (ASCII 09H)** after each bar code.

SECTION E

STANDARD SUFFIX CHARACTERS

Enable ETX Suffix



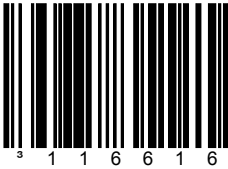
The scanner will transmit
End of TeXt (ASCII 03H)
after the bar code data.

* Disable ETX Suffix



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

Enable UPC Suffix ID

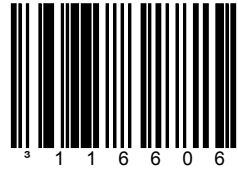


The scanner will transmit a
suffix after any UPC/EAN
bar code.

The suffixes are as follows:

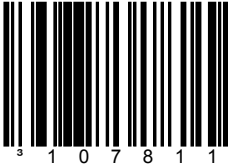
A (UPC-A),
E (UPC-E),
F (EAN-13) and
F (EAN-8).

* Disable UPC Suffix ID



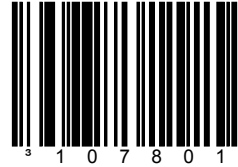
The scanner will not
transmit a suffix after
UPC/EAN bar codes.

Enable Transmit of
LRC Calculation



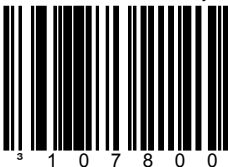
The scanner outputs an
LRC check character after
the bar code.

* Disable Transmit of
LRC Calculation



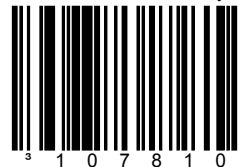
The scanner will not output
an LRC (check character)
after the bar code.

* 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.

SECTION E

CONFIGURABLE SUFFIXES, ALL DATA

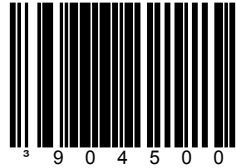


Scan the *Enter/Exit Configuration Mode* bar code before trying to set this feature. Refer to the *Multi-Code Method* on page x.

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 of Book 2 that represents the desired character.

~ Configurable Suffix
Character #2



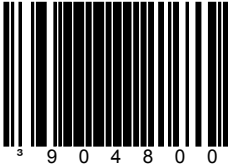
Assigns a 2nd configurable suffix character.

~ Configurable Suffix
Character #3



Assigns a 3rd configurable suffix character.

~ 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 of
Book 2 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 †

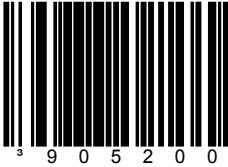


Assigns 7th configurable
suffix character.

SECTION E

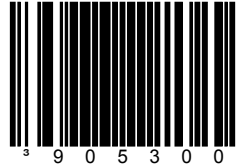
CONFIGURABLE SUFFIXES, ALL DATA

~ Configurable Suffix
Character #8 †



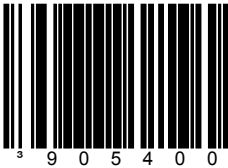
Assigns a 8th configurable
suffix character.

~ Configurable Suffix
Character #9 †



Assigns a 9th configurable
suffix character.

~ Configurable Suffix
Character #10 †



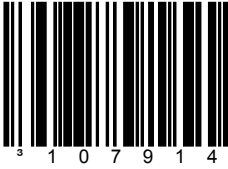
Assigns a 10th configurable
suffix character.

† While using the Multi-Code method, scan this bar code followed by the 3 code byte bar codes in Section M of Book 2 that represents the desired character. (Refer to the *Multi-Code method* on page x.)

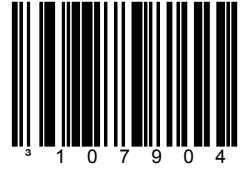
* Clear All User
Configurable Suffixes



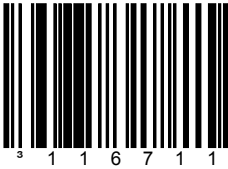
Enable SINEKO Mode



* Disable SINEKO Mode



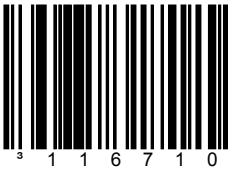
Enable Newcode
Formatting Mode A



* Disable Newcode
Formatting Mode A



Enable Newcode
Formatting Mode B



* Disable Newcode
Formatting Mode B



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METROLOGIC INSTRUMENTS, INC.

MetroSelect[®] Configuration Guide
Book 2 of 2

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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 Features
~ (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

The MetroSelect class of scanners can be bar code configured in two ways: *Single-Code Method* and *Multi-Code Method*.

Single-Code Method

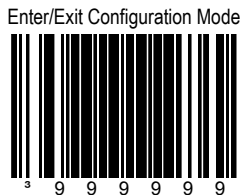
Most features can be enabled or disabled using the Single-Code Method.

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 bar code for the desired features. [1 beep]
4. Scan the *Enter/Exit Configuration Mode* bar code [3 beeps] and save new configuration.



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 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*.





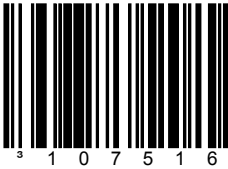
* Transmit UPC-A
Check Digit



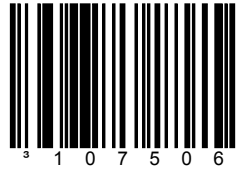
Do not Transmit
UPC-A Check Digit



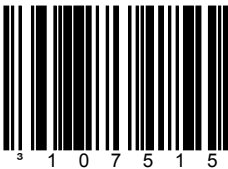
Transmit UPC-E
Check Digit



* Do Not Transmit
UPC-E Check Digit



Expand UPC-E to 12 Digits



* Do Not Expand
UPC-E To 12 Digits



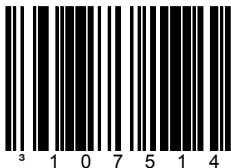
Expand UPC-E bar codes to
the 12 digit equivalent,
UPC-A bar codes.

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

SECTION F

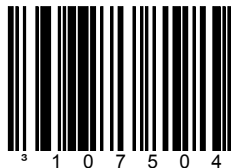
UPC/EAN

Convert UPC-A to EAN-13



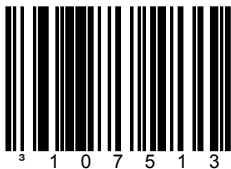
The scanner converts UPC-A to EAN-13 by transmitting a leading zero before the bar code.

* Do Not Convert
UPC-A to EAN-13



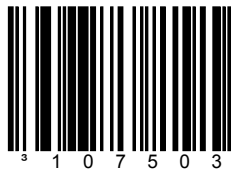
The scanner will not convert UPC-A to EAN-13.

Transmit Lead Zero
on UPC-E



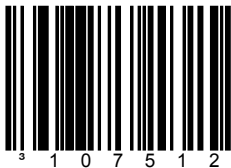
This option will transmit a zero before each UPC-E bar code.

Do Not Transmit
Lead Zero on UPC-E



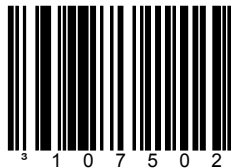
This option will not transmit a zero before each UPC-E bar code.

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

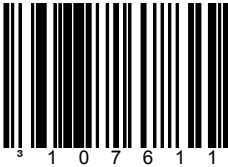


Do Not Transmit UPC-A
Number System

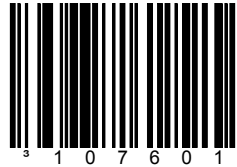


i Metrologic strongly discourages using this feature. Duplicate numbers may result in the database.

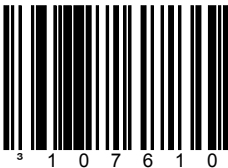
* Transmit
UPC-A MFR #



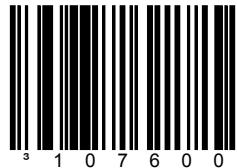
Do Not Transmit
UPC-A MFR #



* Transmit
UPC-A ITEM #



Do Not Transmit
UPC-A ITEM #



SECTION F

UPC/EAN

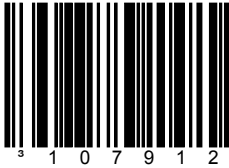
* Transmit EAN-8
Check Digit



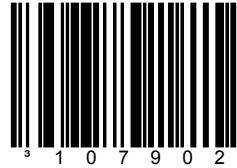
Do Not Transmit
EAN-8 Check Digit



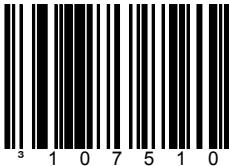
* Transmit EAN-13
Check Digit



Do Not Transmit
EAN-13 Check Digit

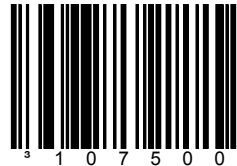


GTIN-14 Format †



† For MS7220, MS7320 and
MS7600 scanners only.

No GTIN-14 Format †



Transmit Codabar
Start/Stop Characters



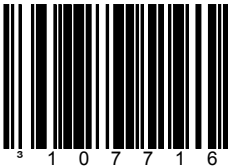
Transmits Codabar's
start/stop characters before
and after each bar code.

* Do Not Transmit
Codabar Start/Stop



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

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

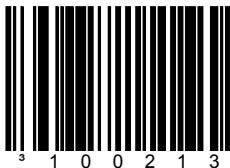


This option will not perform
CLSI type editing before the
information is transmitted to
the host.

SECTION F

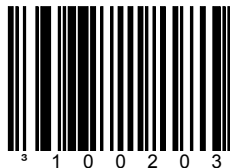
CODE 39

Enable MOD 43
Check on Code 39



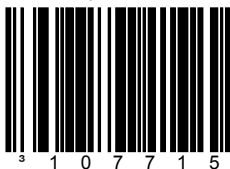
The scanner will only scan
Code 39 bar codes that
have a valid Modulo 43
Check Digit.

* Disable MOD 43 Check
on Code 39



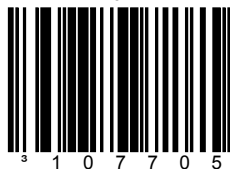
The scanner will not test
Code 39 bar codes for a
Modulo 43 Check Digit.

Transmit Mod 43
Check Digit on Code 39



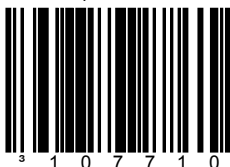
This feature works in
conjunction with Mod 43
Check on Code 39. Both
must be enabled for this
feature to work.

* Do Not Transmit Mod 43
Check Digit on Code 39



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

Transmit Code 39
Start/Stop Characters



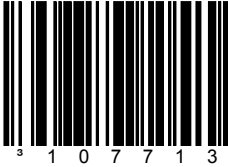
The scanner transmits Code
39's start/stop characters
before and after each bar
code.

* Do Not Transmit Code 39
Start/Stop Characters



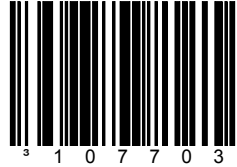
The scanner will not
transmit Code 39's
start/stop characters before
and after each bar code.

Transmit
Code 11 Check Digit



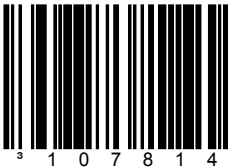
The scanner will transmit Code 11 check characters when used with the Enable Code 11 feature in Section A, Book 1.

* Do Not Transmit
Code 11 Check Digit

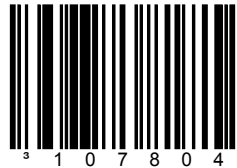


The scanner will not transmit Code 11 check characters.

Enable
Convert Telepen ^L to E



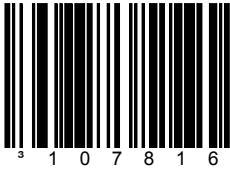
* Disable
Convert Telepen ^L to E



SECTION F

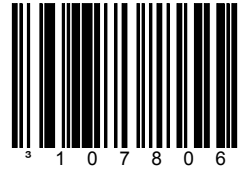
PLESSEY

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
of Book 1.

* Do Not Transmit
UK Plessey Check Digit



Will not transmit UK Plessey
Check Digit characters.

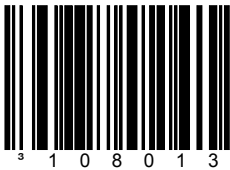
Enable
UK Plessey Special Format



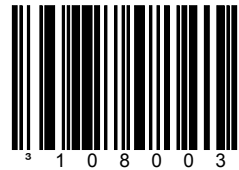
Disable
UK Plessey Special Format



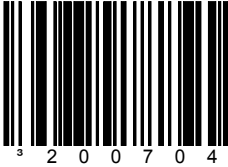
Handle Incorrect
UK Plessey Stop Character



* Normal UK Plessey Stop
Character Handling

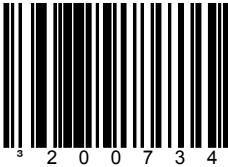


* No MSI Plessey
Check Digit



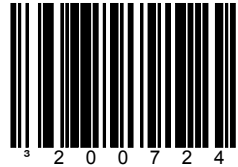
The scanner will not test
MSI Plessey bar codes for a
check digit.

Enable MSI Plessey MOD
10/10 Check Digit



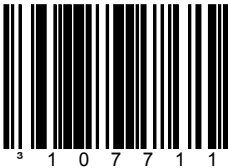
The scanner will test MSI
Plessey bar codes for a
double Modulo 10 check
digit.

* Enable MSI Plessey MOD
10 Check Digit



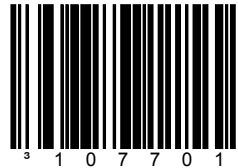
The scanner will test MSI
Plessey bar codes for a
single Modulo 10 check digit.

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

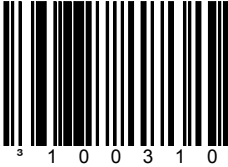


The scanner will not transmit
MSI Plessey's check digit
characters.

SECTION F

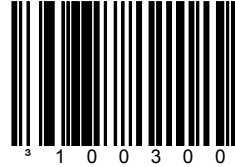
2 OF 5

Enable Mod 10
Check on ITF



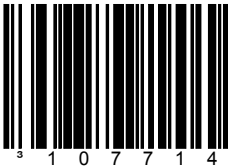
The scanner will only scan Interleaved 2 of 5 (ITF) bar codes that have a Modulo 10 check digit.

* Disable MOD 10
Check on ITF



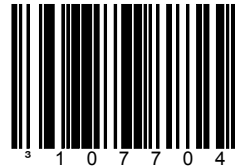
The scanner will not test Interleaved 2 of 5 (ITF) bar codes for a Modulo 10 check digit.

Transmit Mod 10
Check Digit on ITF



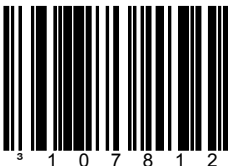
The scanner transmits Interleaved 2 of 5 (ITF) Mod 10 check character.

* Do Not Transmit Mod 10
Check Digit on ITF

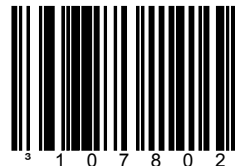


The scanner will not transmit Interleaved 2 of 5 (ITF) Mod 10 check digit character. This feature works in conjunction with Mod 10 check on ITF. Both must be enabled for this feature to work.

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.

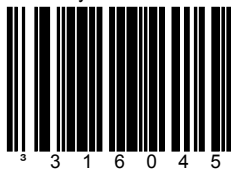
SECTION G

PARITY FEATURES

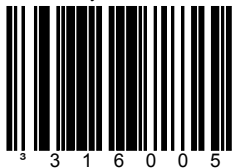


A parity bit is an extra data bit used to help catch data transmission errors. The scanner's parity must match the host's parity.

No Parity

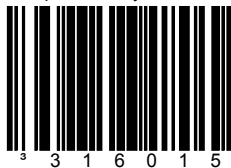


Odd Parity



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



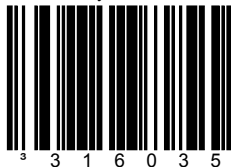
Select to set the parity bit always 0.

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

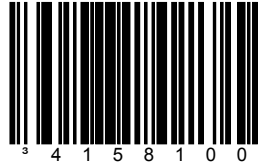


Select to set the parity bit always 1.



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



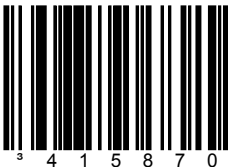
57600 BAUD Rate



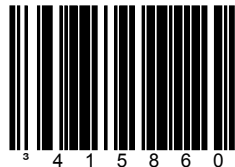
38400 BAUD Rate



19200 BAUD Rate



14400 BAUD Rate



SECTION G

BAUD RATES

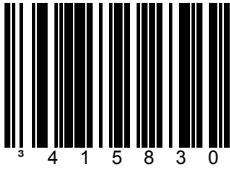
* 9600 BAUD Rate



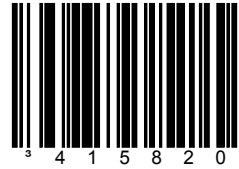
4800 BAUD Rate



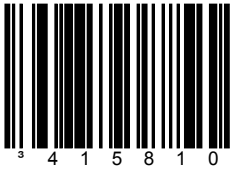
2400 BAUD Rate



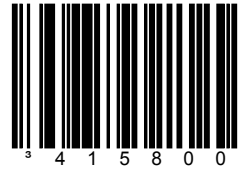
1200 BAUD Rate



600 BAUD Rate



300 BAUD Rate



* 7 Data Bits

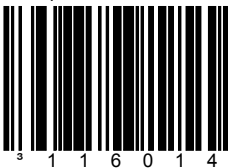


8 Data Bits

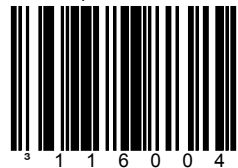


Number of data bits transmitted for each character.

1 Stop Bit



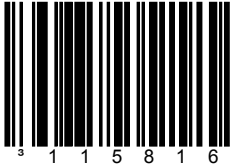
* 2 Stop Bits



SECTION G

HARDWARE HANDSHAKING

Enable RTS/CTS
Handshaking



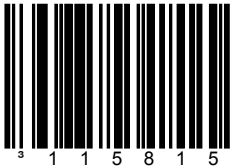
Output a **R**quest to **S**end (RTS) signal and wait for a **C**lear To **S**end (CTS) signal before transmitting data.

* Disable RTS/CTS
Handshaking



Do not use RTS/CTS handshaking.

* Character RTS/CTS



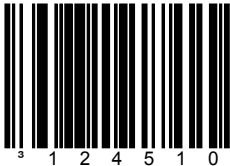
Activate/Deactivate RTS signal for each character.

Message RTS/CTS



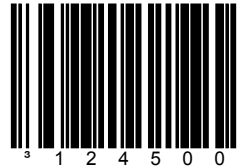
Activate RTS before sending the first character and leave it active until after the last character has been transmitted.

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

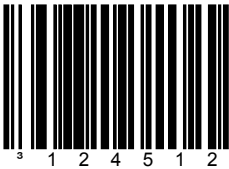
* Standard CTS Polarity



-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

Enable DTR Support

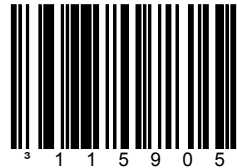


The scanner will stop scanning when the Data Terminal Ready (DTR) signal goes inactive.

* Disable DTR Support

Enable
RTS Counter Toggle

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

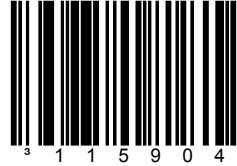
* Disable
RTS Counter Toggle

Enable XON/XOFF
Handshaking



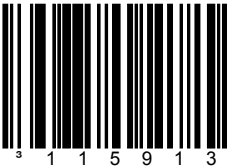
The scanner will stop transmission whenever an XOFF (ASCII 13H) is received. Transmission will resume after an XON (ASCII 11H) is received.

* Disable XON/XOFF
Handshaking



The scanner will not test for XON/XOFF.

Enable ACK/NAK

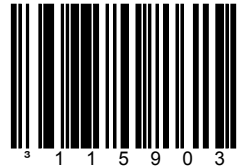


After transmitting data, wait for an ACK (06H) or a NAK (15H) response from the host.

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

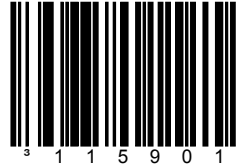
SOFTWARE HANDSHAKING

Support BEL/CAN in
ACK/NAK



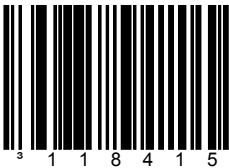
When BEL (07H) is received, the scanner beeps 3 times and exits the communications loop. If a CAN (18H) is received, then the scanner will exit the communications loop, silently.

* Ignore BEL/CAN in
ACK/NAK



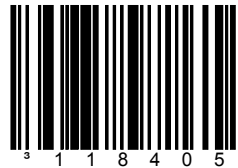
Ignore BEL/CAN characters in communication loop.

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

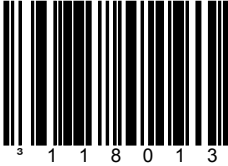


Ignore z characters in communication loop.



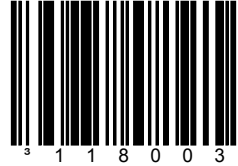
The normal BEL commands must be activated for feature.

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.

SECTION G

MISCELLANEOUS

Enable French PC Term



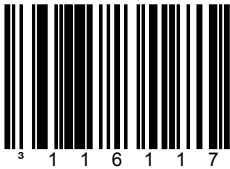
The scanner transmits PC type make/break scan codes instead of ASCII data characters. The scan codes match a WYSE French PC Terminal Emulation.

* Disable French PC Term



Do not transmit in French PC Term Mode.

Enable USA Wyse PC



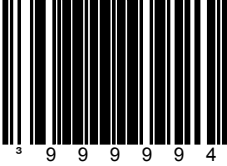
Enables USA Wyse PC style keyboard PCTERM mode.

Disable USA Wyse PC



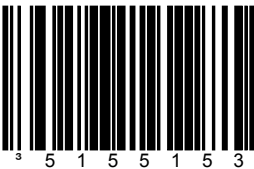
Disables USA Wyse PC style keyboard PCTERM mode.

Load Keyboard Wedge Defaults



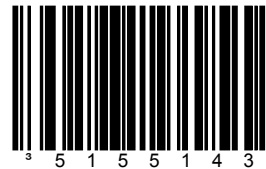
Loads default settings for keyboard wedge mode.

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



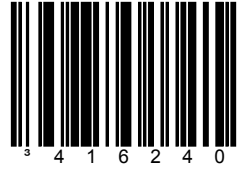
Enable Swiss Keyboard

Spain Keyboard



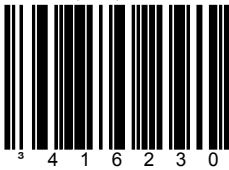
Enable Spanish Keyboard

Italy Keyboard



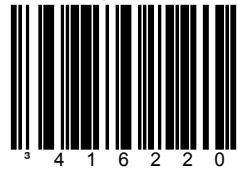
Enable Italian Keyboard

Germany Keyboard



Enable German Keyboard

France Keyboard



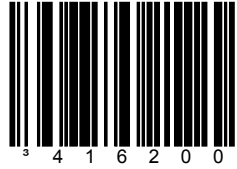
Enable French Keyboard

UK Keyboard



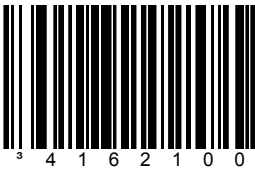
Enable UK Keyboard.

Belgium Keyboard



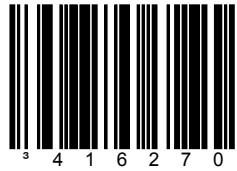
Enable Belgium Keyboard

Japanese Keyboard



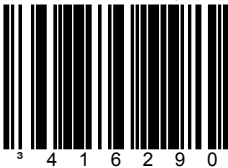
Enable Japanese Keyboard

IBM 4700 Financial Keyboard



Enable IBM 4700 Financial Keyboard

Sweden/Finland Keyboard



Enable Sweden/Finland Keyboard

SECTION H

KEYBOARD/SYSTEM TYPE

* AT Keyboard



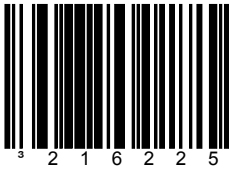
If using an AT computer, scan the above bar code. (Includes IBM PS/2 and compatible models 50, 55, 60, 80)

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



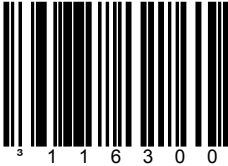
i Do not scan unless instructed by a Metrologic representative.

* Transmit
Make/Break Code



i Do not scan unless instructed by a Metrologic representative.

Do Not Transmit
F0H Break Code



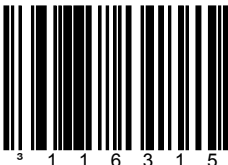
The scanner will not transmit the F0H in the break-code sequence.

* Transmit
F0H Break Code



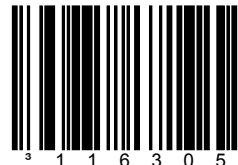
The scanner will transmit the F0H in the break-code sequence.

Transmit Cleanup Bit



Use for certain NEC computers.

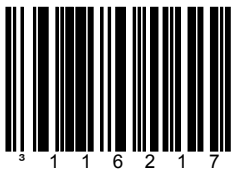
* Do Not Transmit
Cleanup Bit



SECTION H

SPECIAL KEYBOARD FEATURES

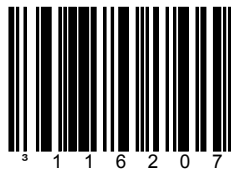
Enable Alt Mode



The scanner will duplicate the following keyboard sequence:

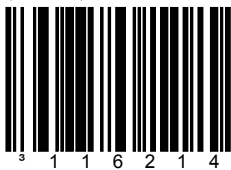
Hold down ALT key and Type decimal number that corresponds to the appropriate character.

* 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)

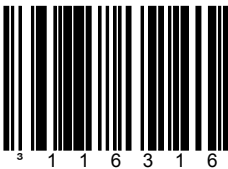


* Disable Caps Lock (XT)

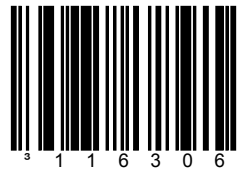


The Caps Lock feature is not supported.

Send Numbers as Keypad Data

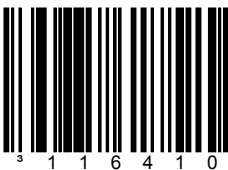


* Send Numbers as Normal Data

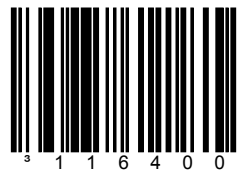


All data is sent as if it has been entered on a keypad.

Enable Reserved Feature



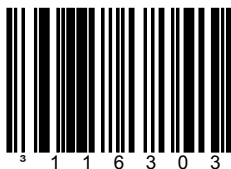
* Disable Reserved Feature



SECTION H

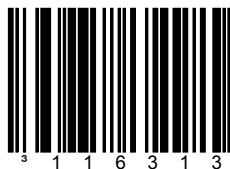
SPECIAL KEYBOARD FEATURES

- * Use Extended ASCII to Send Extended Key Codes



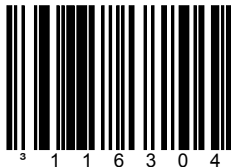
Use extended ASCII characters to send PC keyboard keys such as F1, F2, etc... See section M for details.

- Use Extended ASCII Characters as Extended ASCII

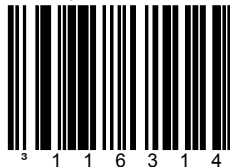


Transmit extended ASCII codes via ALT mode.

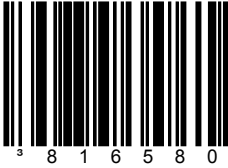
- * Character KB Inhibit



- Message KB Inhibit



Inter-Scan Code Delay
800 Microseconds

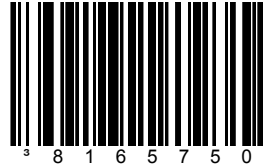


The time specified represents the amount of time between individual 9 bit-scan codes.



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

Inter-Scan Code Delay
7.5 msec

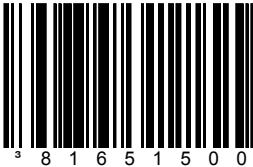


The time specified represents the amount of time between individual 9 bit-scan codes.



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.

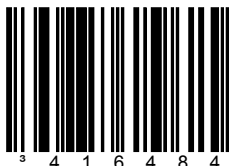
SECTION H

CONTROL SETS

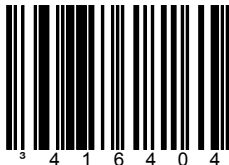
In general, standard bar code symbologies will only encode the ASCII character set. Function keys, arrow keys and many other “extended” keys on an IBM compatible keyboard do not translate to ASCII characters. One method of “bar coding” the extended keys is to substitute the extended key codes when a 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.

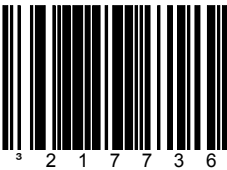
Enable DTS/Siemens



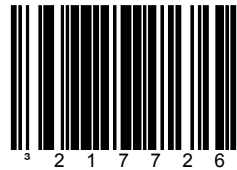
* Enable DTS/Nixdorf



Enable NCR-S

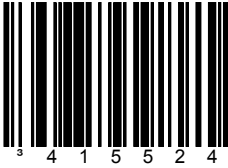


Enable NCR-F



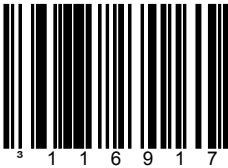


Enable Light Pen Mode

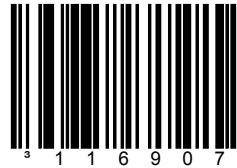


Select this option if the scanner will be used in place of a light pen. It provides light pen emulation of each bar code scanned.

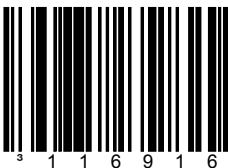
* Bars High



Spaces High

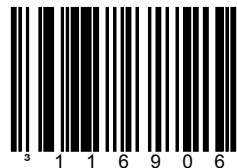


Transmit Code 39



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

* Transmit as Scanned

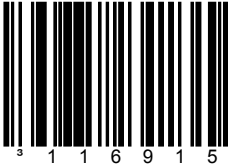


All bar codes will be decoded and transmitted in their original symbology.

SECTION J

LIGHT PEN/SET NARROW ELEMENT BORDER

Poll Light Pen Source

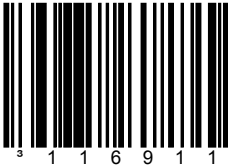


The scanner waits for an active source voltage before transmitting data.

* Do Not
Poll Light Pen Source

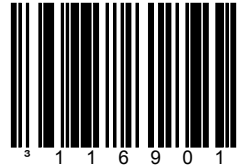


The scanner will not wait for an active source voltage before transmitting data.

Enable Light Pen a
Extra Toggle

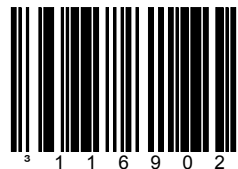
The scanner beeps and toggles the light pen data line with an extra data pulse to condition the decoder.

* 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

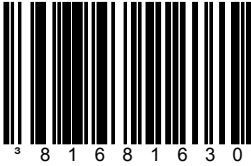


This bar code allows the transmission of Light Pen/Wand emulation using a 50x border.

SECTION J SET NARROW ELEMENT WIDTH /LASER EMULATION

* 1 ms

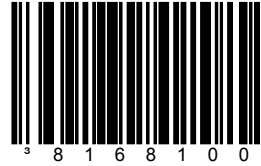
Narrow Element Width



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

60 μ s

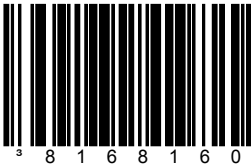
Narrow Element Width



This transmits at 60 μ s narrow element width.

100 μ s

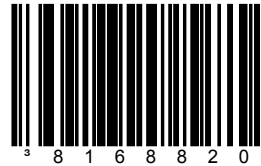
Narrow Element Width



This transmits at 100 μ s narrow element width.

500 μ s

Narrow Element Width



This transmits at 500 μ s narrow element width.

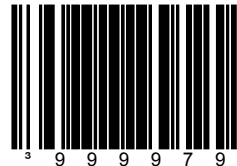
~ Variable

Narrow Element Width †



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

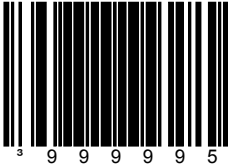
Laser Emulation



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. †

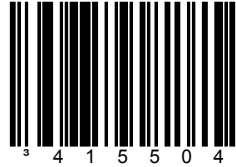


Load
IBM 46xx Defaults



Load default format settings
for IBM 46xx systems.

Enable IBM 46xx
Communication



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

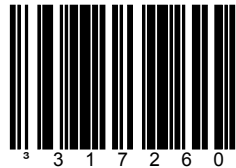


Not all scanners
support this interface.
The correct interface
board is required.

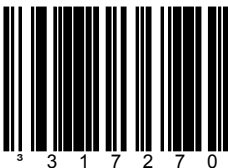
IBM Port 17B
3687-2 In Counter



IBM Port 5B
1520 HH Laser



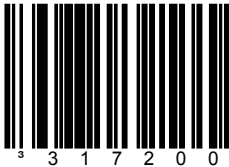
IBM Port 9B
4500 CCD HH BCRI



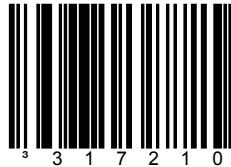
SECTION K

IBM RESERVE CODES

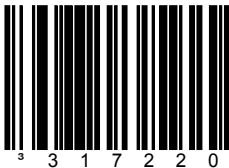
IBM Reserve #1



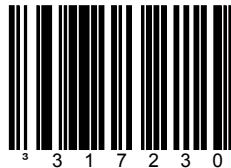
IBM Reserve #2



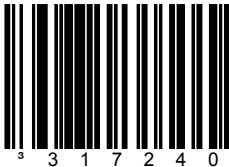
IBM Reserve #3



IBM Reserve #4



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.

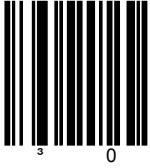
To add an asterisk (*) as a prefix scan the following bar codes in order:

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

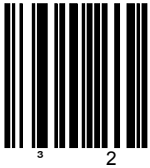
Code Byte 0



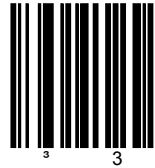
Code Byte 1



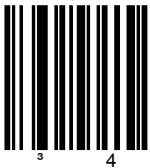
Code Byte 2



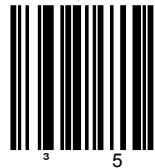
Code Byte 3



Code Byte 4



Code Byte 5



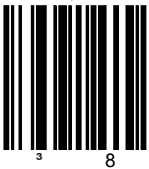
Code Byte 6



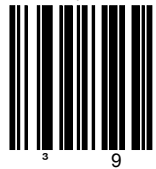
Code Byte 7



Code Byte 8



Code Byte 9



SECTION M

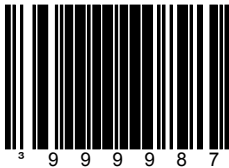
RESERVED CODES

~ 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

SECTION M

EXTENDED KEY CODE REFERENCE TABLE

KEY	AT SCAN CODE	PS2 SCAN CODE	3151	PREFIX/SUFFIX VALUE HEX = DECIMAL
F10	09H	44H	4FH	99H = 153
F11	78H	57H	56H	9AH = 154
F12	07H	58H	5EH	9BH = 155
Numeric +	79H	4EH	00H	9CH = 156
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

* 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.

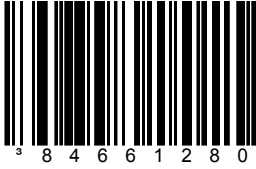
Recall Defaults



SECTION N

CUSTOM DEFAULTS

Ruby Verifone Defaults



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

RCH



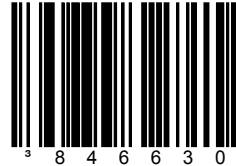
Scan this code followed by the “Recall Defaults” code to enable and load RCH Defaults.

Sanyo



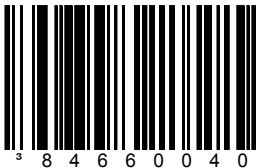
Scan this code followed by the “Recall Defaults” code to enable and load Sanyo Defaults.

Gilbarco



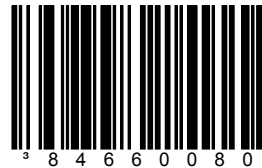
Scan this code followed by the “Recall Defaults” code to enable and load Gilbarco Defaults.

ALT Defaults



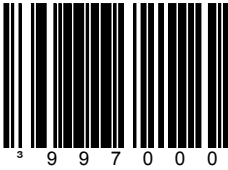
Scan this code followed by the “Recall Defaults” code to enable and load ALT Defaults.

MS6750 Defaults



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

Custom Keyboard FR1



Custom Terminal FR1



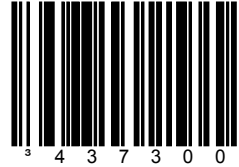
For Serial Program Mode, all commands must be framed by an STX (02 Hex) and ETX (03 Hex). To recall defaults:

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).



* Disable AUX Port



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

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



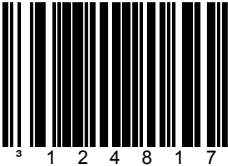
Continued on next page.

SECTION O AUX PORT AND SECONDARY DEVICE DATA FORMATS

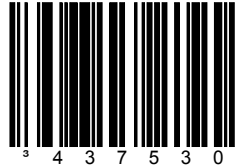
FOR THE MS7220, MS7320, AND MS7600

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

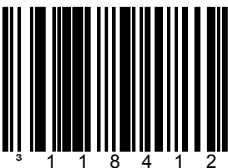
1. Enable AUX Output



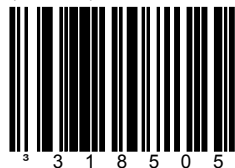
2. Secondary Scanner Data Format



3. Enable Comm Timeouts



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



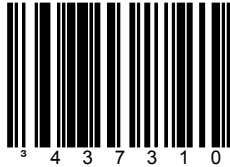
SECTION O **AUX PORT AND SECONDARY DEVICE DATA FORMATS**

FOR THE MS7220, MS7320, AND MS7600

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.

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

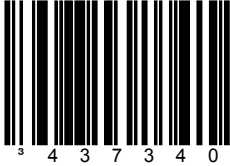
To change these settings refer to Section O, pages 5-8.

SECTION O **ADDITIONAL AUXILIARY PORT DATA FORMATS**



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

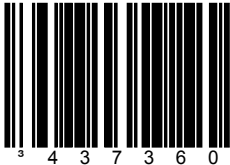
Enable AUX Port with UPC
Supplemental Data Format



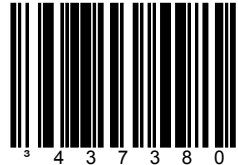
Enable AUX Port with Code
Select Data Format



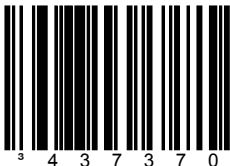
Enable AUX Port with Tech 7,
8 Data Format



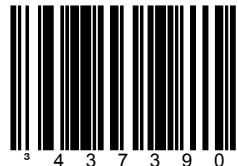
Enable AUX Port with
Reserved 2 Data Format



Enable AUX Port
with Reserved 3 Data Format



Enable AUX Port with
Reserved 1 Data Format



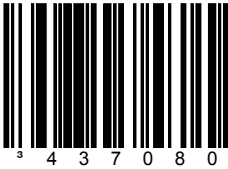
AUX 115200 Baud Rate



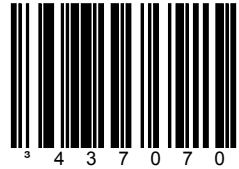
AUX 57600 Baud Rate



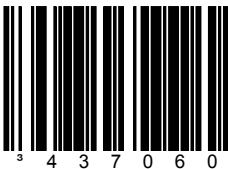
AUX 38400 Baud Rate



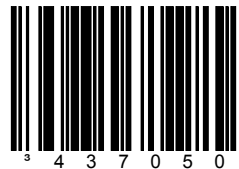
AUX 19200 Baud Rate



AUX 14400 Baud Rate



AUX 9600 Baud Rate



SECTION O

AUXILIARY PORT BAUD RATES

AUX 4800 Baud Rate



AUX 2400 Baud Rate



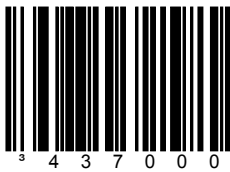
AUX 1200 Baud Rate



AUX 600 Baud Rate



AUX 300 Baud Rate



AUX No Parity



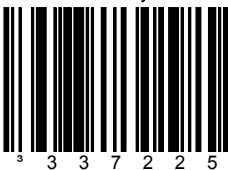
AUX Mark Parity



* AUX Space Parity



AUX Even Parity



AUX Odd Parity



SECTION O

AUXILIARY PORT STOP BITS/DATA BITS

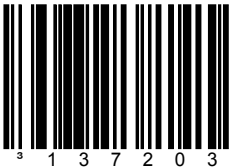
AUX 1 Stop Bit



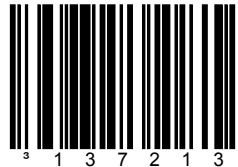
* AUX 2 Stop Bits



* AUX 7 Data Bits



AUX 8 Data Bits



* Enable AUX RTS/CTS Handshaking



Disable AUX RTS/CTS Handshaking



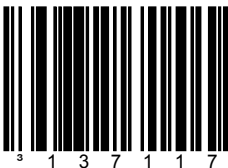
Message AUX RTS/CTS



* Character AUX RTS/CTS



Enable AUX "D/E" Commands



* Disable AUX "D/E" Commands



SECTION O

AUXILIARY F/L, M/O, AND XON/XOFF

Enable AUX "F/L"

Commands



* Disable AUX "F/L"

Commands



Enable AUX

"M/O" Commands



* Disable AUX

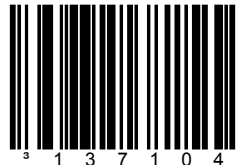
"M/O" Commands



* Enable AUX XON/XOFF
Handshaking



Disable AUX XON/XOFF
Handshaking



SECTION O AUXILIARY ACK/NACK, CTS AND RTS POLARITY

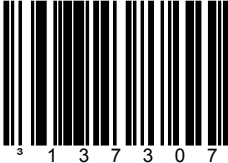
* Enable AUX
ACK/NAK Commands



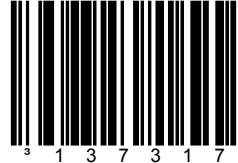
Disable AUX
ACK/NAK Commands



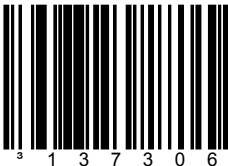
* Normal
AUX CTS Polarity



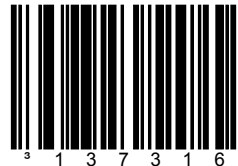
Flip
AUX CTS Polarity



* Normal
AUX RTS Polarity



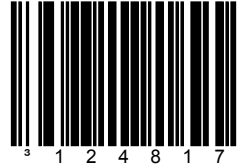
Flip
AUX RTS Polarity



SECTION O MAIN OUTPUT PORT AUXILIARY DATA FORMATS

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

Reserve Code 32

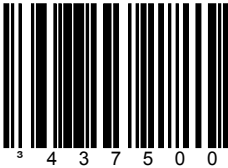


This is a quick method for setting reserve Code 32 in the secondary scanner using HoloTrak Decode Data Format.

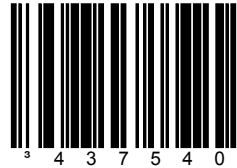


This code should not be used for the MS6720.

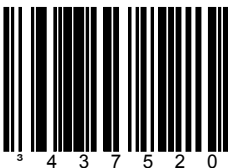
* HoloTrak Decode Output
AUX Data Format



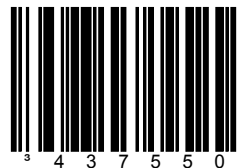
UPC Supplemental Output
AUX Data Format



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



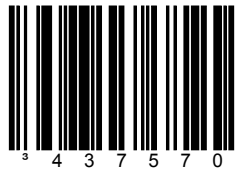
Reserved 1 Output AUX
Data Format



Reserved 2 Output
AUX Data Format



Reserved 3 Output
AUX Data Format



SECTION O

INTER-CHARACTER DELAYS

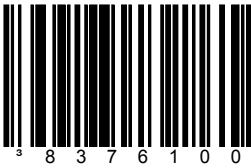
No AUX Port
Inter-Character Delays



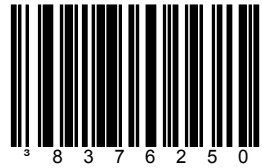
* 1 msec AUX Port
Inter-Character Delay



10 msec AUX Port
Inter-Character Delay



25 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.







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