

METROLOGIC INSTRUMENTS, INC. MetroSelect® Configuration Guide



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INTRODUCTION

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

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

Symbol Key			
* (asterisk)	Default Feature		
~ (tilde)	Feature requires the Multi-Code Configuration Method, see Bar Code Configuration Methods on page xii.		
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 RS232 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.



SECTION A UPC/EAN

* Enable UPC/EAN



Disable UPC/EAN



Enable UPC-A



Disable UPC-A



* Enable UPC-E



Disable UPC-E



Α

SECTION A UPC/EAN

* Enable EAN-13



Disable EAN-13



Enable EAN-8



Disable EAN-8



Auto Redundancy UPC-E



Disable



SECTION A CODE 128

* Enable Code 128



Disable Code 128

Enable UCC/EAN-28 ']C1' Code Formatting



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

Disable
UCC/EAN-128
']C1' Code Formatting



CODE 39 SECTION A

Enable Code 39



Disable Code 39



Enable MOD 43 Check on Code 39



* Disable MOD 43 Check on Code 39

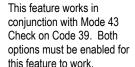


The scanner will only scan Code 39 bar codes that have a valid Modulo 43 check digit.

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

Transmit Mode 43 Check Digit on Code 39





* Do Not Transmit Mode 43 Check Digit on Code 39



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

SECTION A CODE 39

Enable Full ASCII Code 39



* Disable Full ASCII Code 39



Enable PARAF Support (Italian Pharmaceutical Codes)



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

* Disable PARAF Support



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

Enable TRI-OPTIC Code



* Disable TRI-OPTIC Code



Α

Enable Interleaved 2 of 5 (ITF)



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.

Transmit MOD 10 Check Digit on ITF



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

INTERLEAVED 2 OF 5

Disable Interleaved 2 of 5 (ITF)



Disable MOD 10 Check on ITF



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

Do Not Transmit MOD 10 Check Digit on ITF



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.

INTERLEAVED 2 OF 5

Enable ALT Check Digit ITF



Disable ALT Check Digit ITF



Enable 12 Digit ITF Check Digit at 1



Normal Check Digit



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

Enable ITF/Code 39 Filter



Disable ITF/Code 39



Supports Code 39/ITF filters.



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

A

INTERLEAVED 2 OF 5

~ ITF Symbol Length Lock 1 †



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

~ ITF Symbol Length Lock 2 †



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

~ ITF Minimum Symbol Length †



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

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

Enable Standard 2 of 5



* Disable Standard 2 of 5



Standard 2 of 5
 Symbol Length Lock



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

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

OTHER 2 OF 5 CODES

Enable Matrix 2 of 5



Disable Matrix 2 of 5



Enable 15 Digit Airline 2 of 5



Disable 15 Digit Airline 2 of 5



Enable 13 Digit Airline 2 of 5



* Disable 13 Digit Airline 2 of 5



Enable Hong Kong 2 of 5



* Disable Hong Kong 2 of 5



Α

SECTION A CODABAR

* Enable Codabar



* Disable Codabar



Enable Dual Field Codabar



* Disable Dual Field Codabar



Enable Tab in Dual Codabar



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

Disable
Tab in Dual Codabar



* Enable Code 93



Disable Code 93



Enable Code 11



* Disable Code 11



SECTION A TELEPEN

Enable Telepen



* Disable Telepen

Enable ALPHA Telepen



* Disable ALPHA Telepen



Enable MSI Plessey



* Disable MSI Plessey



* No MSI Plessey Check Digit



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

Enable MSI Plessey MOD 10/10 Check Digit



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

 * Enable MSI Plessey MOD 10 Check Digit



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

Α

Transmit MSI Plessey Check Digit



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

* Do Not Transmit MSI Plessey Check Digit

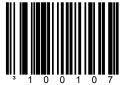


The scanner will not transmit MSI Plessey check digit characters.

Enable UK Plessey



* Disable UK Plessey



Enable UK Plessey A to X Conversion



Disable UK Plessey
 A to X Conversion



Enable Double Border Required/Large Inter-Character Space



 Disable Double Border Required/Large Inter-Character Space



~ Minimum Symbol Length †



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

~ Symbol Length Lock †



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

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

CONFIGURABLE CODE LENGTHS

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

Example:

- 1. Scan the enter/exit configuration bar code.
- 2. Scan the code length lock #1 bar code.
- 3. Scan the three Code Bytes that represent the code length.
- 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.
- 6. Repeat steps 2 through 5 for lock lengths 2 through 7 if desired.
- 7. Scan the enter/exit configuration bar code when finished to save settings.
- ~ Code Length Lock #1



~ Code Type Lock #1



~ Code Length Lock #2



~ Code Type Lock #2



~ Code Length Lock #3



~ Code Type Lock #3



~ Code Length Lock #4



~ Code Type Lock #4



~ Code Length Lock #5



~ Code Type Lock #5



Α

CONFIGURABLE CODE LENGTHS

~ Code Length Lock #6



~ Code Type Lock #6



~ Code Length Lock #7



~ Code Type Lock #7



Enable RSS 14



* Disable RSS 14



* Transmit RSS 14 Check Digit



Do Not Transmit RSS 14 Check Digit



* Transmit RSS 14 Application ID



Application identifier "01" is transmitted by default.

RSS 14 FEATURES

Do Not Transmit RSS 14 Application ID



 * Transmit RSS 14 Symbology ID



Symbology identifier "]e0" is transmitted by default.

Do Not Transmit RSS 14 Symbology ID



Enable RSS Limited



* Disable RSS Limited



* Transmit RSS Limited Check Digit



Do Not Transmit RSS Limited Check Digit



RSS LIMITED FEATURES

* Transmit RSS Limited Application ID



Application identifier "01" is transmitted by default.

Do Not Transmit RSS Limited Application ID



* Transmit RSS Limited Symbology ID



Symbology identifier "]e0" is transmitted by default.

Do Not Transmit RSS Limited Symbology ID



Enable RSS Expanded



* Disable RSS Expanded



* Transmit RSS Expanded Symbology ID



Symbology identifier "]e0" is transmitted by default.

Do Not Transmit RSS Expanded Symbology ID



Α

SUPPLEMENTS/REDUNDANCY

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



В

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



В

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 8711685 Requires 5-Digit Supplement



The scanner will require a 5-digit supplement to be scanned when an EAN-13 code begins with 8711685.



This feature is not available with all models.

* Disable 8711685 Requires 5-Digit Supplement



The scanner will not require a 5-digit supplement to be scanned when an EAN-13 code begins with 8711685.

Enable Coupon Code 128



* Disable Coupon Code 128



В

Enable Code 128 ']C1'
Extended Code Format



The scanner will transmit a ']C1' at the beginning of the code 128 portion of the coupon code.

Enable 128 Group Separators



"GS" (1DH) character will 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.

Disable Code 128 ']C1'
 Extended Code Format



The scanner will not transmit a ']C1' at the beginning of the code 128 portion of the coupon code.

 Disable 128 Group Separators



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

200 msec to Find Supplemental



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

400 msec to Find Supplemental



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

Enable Code ID's with Supplements



* Disable Code ID's with Supplements



Allow 2/5 on 977 Bar Code



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

Allow 2 on 977 Bar Code



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

В

* Beep Once on Supplements



Beep twice on Supplements



Enable ISBN Check Digit Transmission



This feature is not available with all models.

Disable ISBN Check Digit Transmission



Enable Bookland to ISBN Conversion





This feature is not available with all models.

* Disable Bookland to ISBN Conversion



Enable ISBN Re-Formatting





This feature is not available with all models.

Disable ISBN Re-Formatting



В

Enable ISSN Check Digit Transmission

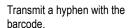


Disable ISSN Check Digit Transmission



Enable ISSN Re-Formatting





* Disable ISSN Re-Formatting



Enable 977 to ISSN Conversion



Convert 977 periodicals to ISSN format.

* Disable 977 to ISSN Conversion



Do not convert 977 periodicals to ISSN format.

Enable Number System 4 Coupon Code 128



Supports Coupon Code 128 for Number System 4 bar codes.

Disable Number System4 Coupon Code 9128



Enable UPC Discard



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

* Disable UPC Discard



Allow Supplements and UPC in Same Line



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

Disable Supplements and UPC in Same Line



В

* Enable RS-232



The scanner will work with RS-232 ±12V serial output.

Enable Light Pen/Wand Communication



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

Enable Stand-Alone Keyboard Scanner



Allows the scanner to be used without an external keyboard.

Load Keyboard Wedge Defaults



Scan this before selecting Normal or Stand Alone Mode.

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.

C

SECTION C

COMMUNICATIONS

Load OCIA Defaults



Scan this before selecting Enable OCIA output.

Enable OCIA Output



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

Load IBM 46xx Defaults



Scan this before selecting Enable IBM 46xx Communication

Enable IBM 46xx Communication



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



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

Load Low Speed External USB Defaults †



† Refer to Section P for full speed USB options.

Enable Low Speed USB †



Load Low Speed Internal USB Defaults †



Enable No Communication Mode



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

Reserved



Reserved



Allow Configuration Mode on Power-Up



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

Allow Configuration Codes on Power Up



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

Enable Single Code Configuration



* Allow Configuration Mode Anytime



Allow MetroSet® configuration at any time.

* Allow Configuration Codes Anytime



Allows scanning of configuration bar codes any time.

Disable Single Code Configuration



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

* 0 Redundant Scans



Requires 1 good decode for a "good scan".

2 Redundant Scans



Requires 3 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".

REDUNDANT SCANS

1 Redundant Scans



Requires 2 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".

5 Redundant Scans



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

REDUNDANT SCANS

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".

In-Store Redundancy



Enable redundancy of EAN-13 Sys2 & UPCA sys2 & Sys4 (store printed barcodes).

Disable In-Store Redundancy



Disable redundancy of EAN-13 Sys2 & UPCA sys2 & Sys4 (store printed barcodes).

SECTION D

MISCELLANEOUS DECODE FEATURES

 * Enable Segmented UPC Decoding



Enabling segmented UPC decoding aids in deciphering damaged or incomplete bar codes.

* Enable Piece In-Store Bar Codes



Enable piece EAN-13 Sys2, and UPCA Sys2 and Sys4 (store printed barcodes).

Optional Same Symbol Check



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

Disable Segmented UPC Decoding



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

Disable Piece In-Store Bar Codes



Disable piece EAN-13 Sys2, and UPCA Sys2 and Sys4 (store printed barcodes).

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 msecs 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 msecs to 6350 msecs (6.35 sec).

No Same Symbol Time Out



Same Symbol Time Out 100 msecs



Same Symbol Time Out 200 msecs



* Same Symbol Time Out 500 msecs



Same Symbol Time Out 1200 msecs



Same Symbol Time Out 2000 msecs



SAME SYMBOL TIME OUTS

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

BARCODE ABSENCE

Enable Bar Code Absence Detection †



† Excludes the MS2000 Stratos Series.

Disable Bar Code Absence Detection †

Enable Stratos Bar Code Absence Detection



The scan field must be free of data for 50 milliseconds to accept a new bar code.

Disable Stratos Bar Code Absence Detection



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

* Enable 3rd LED



Enable scanner's optional third LED.



This feature is not available with all models.

Disable 3rd LED



Disable scanner's optional third LED.



This feature is not available with all models.

SECTION D LED OPTIONS





Laser LED Intensity is High or Normal.

Scan LED High Intensity



Scan LED Intensity is High or Normal.

Scan LED Off



The scan LED does not signify barcode scanning. The LED will continue to light for all other functions.



This feature is not available with all models.

Laser LED Low Intensity



Laser LED is Low Intensity



This feature is not available with all models.

Scan LED Low Intensity



Scan LED Intensity is Low Intensity



This feature is not available with all models.

Laser LED Off



The laser LED does not signify laser ON. The LED will continue to light for all other functions.



This feature is not available with all models.

SECTION D

BEEPER OPTIONS

* Normal Tone



Optional Tone 1



Optional Tone 2



Optional Tone 3



Optional Tone 4



Optional Tone 5



Optional Tone 6



No Beep



Enable Good Scan Beep



Enable good scan beep on power up.

Disable Good Scan Beep



Disable good scan beep on power up.

Enable Button Beep Controls



This feature is not available with all models.

Disable Button Beep Controls





This feature is not available with all models.

SECTION D

BEEPER OPTIONS

Next Beep Tone



Next Volume



* Loudest Volume



2nd Loudest Volume



3rd Loudest Volume



No Volume



Beep Once on Supplements



Beep Twice on Supplements



Enable Fast Beep



Disable Fast Beep



SECTION D

BEEPER OPTIONS

Beep on BEL Command



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

Ignore BEL Command



Enable 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.

Disable Light Pen Toggle **During Beep**



SECTION D INTER-CHARACTER DATA TRANSMISSION DELAYS

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

* 1 msec Inter-Character Delay



10 msec Inter-Character Delay



25 msec Inter-Character Delay



Variable msec
 Inter-Character Delay



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

Refer to the Multi-Code Configuration Method on page xii.

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".

Do not monitor D/E

commands.

Disable "D/E" Disable

Enable "Z/R" Type D/F Simulation



The scanner will disable scanning after it receives an ASCII "7" 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.

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 "I." character.

Disable "F/L" Laser Command



Do not monitor "F/L" commands.

SECTION D

HOST SCANNER 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 S Command



Disable S Command



Enable EM Commands



* Disable EM Commands



Enable EM command. End of Medium (ctrl Y). The EM command sends and ID string then a scanner status spread over two bytes.

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



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

CR Terminator enabled.

Disable Pass Through



Blink LEDs on Disable



When using CTS scan disable or DTR disable, blink the LEDs that signify the unit is disabled (signal = off).

No Blink LEDs on Disable



When using CTS scan enable or DTR disable, do not blink the LFDs that signify the unit is disabled (signal = off).

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

Always Power Save Mode†



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

† For use with omnidirectional scanners only.

POWER SAVE MODES

No Power Save Mode†



The scanner will never enter power save mode. †

Power Save Mode in 1 minute †



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

Power Save Mode in 2 minutes †



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

Power Save in 5 Minutes †



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

Power Save in 10 Minutes †



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

Power Save in 20 Minutes †



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

† For use with omnidirectional scanners only.

Power Save in 30 Minutes †



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

Default



This feature is not available with all models.

†† Some Metrologic scanners automatically 'wake' or exit from the power save mode if the IR detects movement. Other Metrologic scanners wake if their multi-Function Button is pressed. Please refer to the Installation and User's Guide specific to each product. Blink



The laser Blinks OFF & ON after a configured period of non-use.

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



This feature is not available with all models.

SECTION D

POWER SAVE MODES

Laser OFF Power Save Mode ††



The laser turns OFF after a configured period of non-use.



This feature is not available with all models.

Dual #1 Power Save Mode ††



The laser blinks OFF & ON after a configured period of non-use then the laser and motor turn OFF at thirtyminute intervals.

Example 1:

Example of Dual #1 Power Save Mode with the power save timeout set to 15 minutes.





This feature is not available with all models.

†† Some Metrologic scanners automatically 'wake' or exit from the power save mode if the IR detects movement. Other Metrologic scanners wake if their multi-Function Button is pressed. Please refer to the Installation and User's Guide specific to each product.

Laser Motor OFF Power Save Mode ††



The laser and motor turns OFF after a configured period of non-use.



This feature is not available with all models.

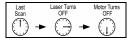
Dual #2 Power Save Mode ††



The laser turns OFF after a configured period of nonuse then the motor turns OFF at thirty-minute intervals.

Example 2:

Example of Dual #2 Power Save Mode with the power save timeout set to 15-minutes.





This feature is not available with all models.

Enable Power Save Switch





This feature is not available with all models.

Enable Wake with Switch Only



Only wake from power save using the multi-function button

Disable





This feature is not available with all models.

Enable Wake with IR or Switch



Wake using the IR or the multifunction button.

SECTION D

JAPANESE DOUBLE FIELD SUPPORT

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

- Disable Segmented UPC Decoding
- Enable 2 scan buffers
- Disable bar code absence detection
- Enable normal code selects

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

Enable Japan 2 Field





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

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

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

EXAMPLE

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

- 1. Scan the Upper Code 1 Character 1 bar code (shown on page D 31)
- Determine the correct Code Byte Value for the character 5 in 54 (Refer to Section M's ASCII Reference Table, starting on page M 6)
 - a. Scan Code Byte 0
 - b. Scan Code Byte 5
 - c. Scan Code Byte 3
- 3. Scan the Upper Code 1 Character 2 bar code (shown on page D 31)
- 4. Determine the correct Code Byte Value for the character 4 in 54.
 - a. Scan Code Byte 0
 - b. Scan Code Byte 5
 - c. Scan Code Byte 2

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

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

Upper Code 1 Character 1



Upper Code 1 Character 2



Lower Code 1 Character 1



Lower Code 1 Character 2



Upper Code 2 Character 1



Upper Code 2 Character 2



SECTION D

JAPANESE DOUBLE FIELD SUPPORT

Lower Code 2 Character 1



Lower Code 2 Character 2



Upper Code 3 Character 1



Upper Code 3 Character 2



Lower Code 3 Character 1



Lower Code 3 Character 1



Upper Code 4 Character 1



Upper Code 4 Character 2



Lower Code 4 Character 1



Lower Code 4 Character 2



SECTION D

JAPANESE DOUBLE FIELD SUPPORT

Japanese Trial Time



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

1 is equal to 100 milliseconds

Example:

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

Transmit Top Code Select



Transmit the highest priority code select if all are not found.

Enable Frror Tone



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

Enable Code Selects



Transmit All Code Selects



Transmit all code selects.

Disable Error Tone



TEST MODES Section D

Scanability ON



The scanner will enter scanability test mode.

Do not enable unless instructed to by a Metrologic representative.

Scan Count Mode ON



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

Do not enable unless instructed to by a Metrologic representative.

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

Scanability OFF



Scan Count Mode OFF



Temporary Symbologies



Do not enable unless instructed to by a Metrologic representative



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

Enter/Exit Configuration Mode



~ Configurable Prefix Character #2



Assigns a 2nd configurable prefix character.

~ Configurable Prefix Character #4



Assigns a 4th configurable prefix character.

~ Configurable Prefix Character #1



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

~ Configurable Prefix Character #3



Assigns a 3rd configurable prefix character.

~ Configurable Prefix Character #5



Assigns a 5th configurable prefix character.

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SECTION E

CONFIGURABLE PREFIXES, ALL DATA

~ Configurable Prefix Character #6



Assigns a 6th configurable prefix character.

~ Configurable Prefix



Assigns a 8th configurable prefix character.

~ Configurable Prefix Character #10



~ Configurable Prefix Character #7



Assigns a 7th configurable prefix character.

~ Configurable Prefix Character #9



Assigns a 9th configurable prefix character.

Clear all User Configurable Prefixes

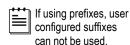


SECTION E CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

Use Configurable Code ID Bytes as Prefixes



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



Use Configurable Code ID Bytes as Suffixes



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

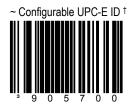


If using suffixes, user configured prefixes can not be used.

IDENTIFIERS CHARACTER

~ Configurable UPC-A ID †





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

Е

CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

~ Configurable EAN-8 ID †



~ Configurable EAN-13 ID †



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

~ Configurable Code 39 ID †



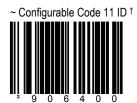
~ Configurable Code 128 ID †



CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

~ Configurable Code 93 ID †





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

~ Configurable Telepen ID †



~ Configurable TRI-OPTIC ID †

E

SECTION E CONFIGURABLE ID CHARACTERS, CODE SPECIFIC

Configurable
 Standard 2 of 5 ID †



~ Configurable Interleaved 2 of 5 ID †



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

Configurable
 Matrix 2 of 5 ID †



Configurable
 Airline 2 of 5 ID †



CONFIGURABLE ID CHARACTERS CODE SPECIFIC

Configurable
 MSI Plessey ID †



Configurable
 UK Plessey ID[†]



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

 Configurable Codabar ID †



* Clear all Configurable Code Specific ID's †



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



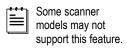
Disable Rockford-Thompson Mode



Enable AIM ID Characters



The scanner will transmit AIM symbology identifiers.



Disable AIM ID Characters



The scanner will not transmit AIM symbology identifiers.

STANDARD PREFIX CHARACTERS

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-É),

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-É),

FF (EAN-8),

T (LAN-0)

F (EAN-13),

B1 (Code 39),

B2 (ITF) and

B3 (Code 128 & other codes).

* Disable NCR Prefix ID



Е

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.

STANDARD PREFIX CHARACTERS

Enable TEC Register Format ID Characters



Disable TEC Register Format ID Characters



Enable TEC MA1530 **ID Characters**



Disable TEC MA1530 **ID Characters**



Enable Symbology Prefix



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

Disable Symbology Prefix



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

Е

STANDARD PREFIX CHARACTERS

Enable Manufacturer ID Prefix



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

* Disable Manufacturer ID Prefix



The scanner will not transmit the manufacturer identification string.

Enable "C" Prefix



* Disable "C" Prefix



Enable "\$" Prefix ID for UPC/EAN



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



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



E

STANDARD SUFFIX CHARACTERS

* Enable CR Suffix



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

* Enable LF Suffix



The scanner will 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 CR Suffix



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

Disable LF Suffix



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

* Disable Tab Suffix



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

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.

Е

LONGITUDINAL REDUNDANCY CHECK (LRC)

Enable Transmit of LRC Calculation



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

Disable Transmit of LCR Calculation



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

Start LRC on First Byte



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

Start LRC on Second Byte



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

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 xii.

Enter/Exit Configuration Mode



~ Configurable Suffix Character #1



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

 Configurable Suffix Character #2



Assigns a 2nd configurable suffix character.

~ Configurable Suffix Character #3



Assigns a 3rd configurable suffix character.

Е

SECTION E

CONFIGURABLE SUFFIXES, ALL DATA

~ Configurable Suffix Character #4 †



Assigns a 4th configurable suffix character.

~ Configurable Suffix Character #5 †



Assigns a 5th configurable suffix character.

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

~ 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 that represent the desired character. (Refer to the Multi-Code Method on page xii.)

Clear All User Configurable Suffixes



Е

E

SECTION E

SPECIAL FORMATS

Enable SINEKO Mode



* Disable SINEKO Mode



Enable Newcode Formatting



* Disable Newcode Formatting Mode A



Enable Newcode Formatting Mode B



Disable Newcode Formatting Mode B



To replace a character:

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

Character to Replace



No Replacement



Replacement Character



Е

SECTION F UPC/EAN

 * 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



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

 Do Not Expand UPC-E To 12 Digits



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

F

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.

Transmit Lead Zero on UPC-E



This option will 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 UPC-A to EAN-13



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

Do Not Transmit Lead Zero on UPC-E



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

* Do Not Convert EAN-8 to EAN-13



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

SECTION F UPC/EAN

* Transmit UPC-A Number System



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

* Transmit UPC-A MFR #



Do Not Transmit UPC-A MFR #



Do Not Transmit UPC-A

Number System

* Transmit UPC-A ITEM #



Do Not Transmit UPC-A ITEM #



F

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



This feature is not available with all models.

No GTIN-14 Format



SECTION F **CODABAR**

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.

Convert Codabar Start/Stop Characters to Lowercase



* Do Not Convert Codabar Start/Stop Characters to Lowercase



F

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.

F

Transmit Code 39 Start/Stop Characters



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

* Do Not Transmit Code 39 Start/Stop Characters



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

Transmit Code 11 Check Digit



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

* Do Not Transmit Code 11 Check Digit



The scanner will not transmit Code 11 check characters.

Enable Convert Telepen ^L to E



Disable Convert Telepen ^L to E



F

SECTION F **PLESSEY**

Transmit **UK Plessey Check Digit**



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

Do Not Transmit **UK Plessey Check Digit**



Will not transmit UK Plessey Check Digit characters.

Enable **UK Plessey Special Format**



Disable **UK Plessey Special Format**



Handle Incorrect **UK Plessey Stop Character**



Normal UK Plessey Stop Character Handling



SECTION F **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.

Transmit MSI Plessey Check Digit



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

Enable MSI Plessey MOD 10 Check Digit



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

* Do Not Transmit MSI Plessey Check Digit



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

F

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.

Transmit Mod 10 Check Digit on ITF



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

Transmit Matrix 2 of 5 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.

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.

Do Not Transmit Matrix 2 of 5 Check Digit.



* Enable RS-232 Mode



When enabled the scanner will work with RS-232 ±12V serial output.

RS-232 G 2

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.



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.



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.

SECTION G BAUD RATES



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



57600 BAUD Rate



38400 BAUD Rate



19200 BAUD Rate



14400 BAUD Rate



G

BAUD RATES

9600 BAUD Rate



4800 BAUD Rate



2400 BAUD Rate



1200 BAUD Rate



600 BAUD Rate



300 BAUD Rate



* 7 Data Bits



Number of data bits transmitted for each character.

8 Data Bits



1 Stop Bit



* 2 Stop Bits



G

HARDWARE HANDSHAKING

Enable RTS/CTS Handshaking



Output a Request to Send (RTS) signal and wait for a Clear To Send (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

Activate RTS, Do Not wait for CTS (RSV3)



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

Test CTS Not Present Before RTS (RSV4)



Do not activate RTS if CTS is already present.

Standard CTS Polarity



-12V = Inactive, do not send

+12V = Active, OK to send

* Activate RTS, Wait for CTS



Wait for CTS after activating RTS.

* Do Not Test for CTS Present Before RTS



Activate RTS without testing if CTS is already active.

G

HARDWARE HANDSHAKING

CTS Scan Transmit



The CTS line is used to allow a decoded bar code to be transmitted. Use reserved code 4 to ensure 1 bar code per CTS. This will prevent the scanner from gathering data until the CTS signal has been retracted.



This feature is not available with all models.

Enable DTR Support



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

Enable RTS Counter Toggle



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

* No CTS Scan Transmit

Do not support CTS scan transmit.

* Disable DTR Support



DisableRTS Counter Toggle



SOFTWARE HANDSHAKING

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.

G

SOFTWARE HANDSHAKING

Enable O/N Handshaking



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

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.

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



The normal BEL commands must be activated for feature.

Disable O/N Handshaking



 Ignore BEL/CAN in ACK/NAK



Ignore BEL/CAN characters in communication loop.

Disable Razz Command



Ignore z characters in communication loop.

SOFTWARE HANDSHAKING

Enable XON/XOFF Scan Inhibit On





This feature is not available with all models.

Enable 5 Retries on ACK/NAK Time Out



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

Enable 5 NAK Retries



* Disable XON/XOFF Scan Inhibit Off





This feature is not available with all models.

 Disable 5 Retries on ACK/NAK Time Out



Do not limit retransmission to 5 NAK cycles.

Disable 5 NAK Retries



G

Enable French PC Term



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

Disable French PC Term



Do not transmit in French PC Term Mode.

Enable USA Wyse PC



Enables USA Wyse PC style keyboard PCTERM mode.

Disable USA Wyse PC



Disables USA Wyse PC style keyboard PCTERM mode.

Enable Receive Data



Disable Receive Data



Disable receive port after 5 seconds.

Load Keyboard Wedge Defaults



Loads default settings for keyboard wedge mode.

Enable Stand-Alone Keyboard Emulation



Use this with special standalone 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.

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

COUNTRY/SCAN CODE TABLE SELECTS

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

н

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.

SPECIAL KEYBOARD FEATURES

Transmit Make Code Only



Do not scan unless instructed by a Metrologic representative.

* Transmit Make/Break Code



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



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



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.

SPECIAL KEYBOARD FEATURES

Enable Caps Lock (XT)



Disable Caps Lock (XT)



The Caps Lock feature is not supported.

Send Numbers as Keypad Data



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

Send Numbers as Normal Data



Enable Reserved Feature



Disable Reserved Feature



н

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 DELAYS

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 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. 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.

Variable Inter-Scan
 Code Delay msec



Refer to the Multi-Code Configuration Method on page xii.

Н

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



SECTION I OCIA

Load OCIA Defaults



Enable OCIA



Select this option if communications require OCIA (Optically Coupled Interface Adapter).



This serial interface is clocked by the host.

Enable DTS/Siemens



* Enable DTS/Nixdorf



Enable NCR-S



Enable NCR-F



SECTION J LIGHT PEN

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.

J

SECTION J

LIGHT PEN/SET NARROW ELEMENT BORDER

Poll Light Pen Source



The scanner waits 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.

10x Narrow Element Border



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

 Do Not Poll Light Pen Source



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

Disable Light Pen Extra Toggle



* 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.

100 µs Narrow Element Width



This transmits at 100 µs narrow element width.

Variable
 Narrow Element Width †



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

60 µs Narrow Element Width



This transmits at 60 µs narrow element width.

500 µs Narrow Element Width



This transmits at 500 µs narrow element width.

Laser Emulation



J

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

IBM 46xx Configuration/IBM Ports

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 BCR1



IBM Port 9B 4501 CCD HH BCR2



SECTION K

IBM RESERVE CODES

IBM Reserve #1



IBM Reserve #2



IBM Reserve #3



IBM Reserve #5



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



EXAMPLE

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

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

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

М

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 8



Code Byte 9



М

~ Enable Reserved Code



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

~ Disable Reserved Code



CODE BYTE/CODE TYPE TABLE

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	В
03	003	ETX	С
04	004	EOT	D
05	005	ENQ	E
06	006	ACK	F
07	007	BEL	G
08	008	BS	Н
09	009	HT	1
0A	010	LF	J
0B	011	VT	K
0C	012	FF	L
0D	013	CR	M
0E	014	SO	N
0F	015	SI	0
10	016	DLE	Р
11	017	DC1	Q
12	018	DC2	R
13	019	DC3	S
14	020	DC4	Т
15	021	NAK	U
16	022	SYN	V
17	023	ETB	W
18	024	CAN	X
19	025	EM	Υ
1A	026	SUB	Z

HEX VALUE	DECIMAL VALUE/ CODE BYTE VALUE	CHARACTER	CONTROL KEYBOARD EQUIVALENT
1B	027	ESC]
1C	028	FS	1
1D	029	GS	٨
1E	030	RS	_
1F	031	US	
20	032	SP	space, blank
21	033	!	
22	034	и	
23	035	#	
24	036	\$	
25	037	%	
26	038	&	
27	039	í	apostrophe
28	040	(
29	041)	
2A	042	*	
2B	043	+	
2C	044	,	comma
2D	045	-	minus
2E	046		period
2F	047	1	
30	048	0	number zero
31	049	1	number one
32	050	2	
33	051	3	
34	052	4	
35	053	5	

8

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	Α	
42	066	В	
43	067	С	
44	068	D	
45	069	Е	
46	070	F	
47	071	G	
48	072	Н	
49	073	1	letter l
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	0	letter O
50	080	Р	
51	081	Q	
52	082	R	
53	083	S	
54	084	T	
55	085	U	
56	086	V	
57	087	W	
58	088	Χ	
59	089	Υ	
5A	090	Z	
5B	091	[shift K
5C	092	1	shift L
5D	093]	shift M
5E	094	٨	♠, shift N
5F	095		←, shift 0, underscore
60	096	í	accent grave
61	097	а	
62	098	b	
63	099	С	
64	100	d	
65	101	е	
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	1	
6D	109	m	
6E	110	n	
6F	111	0	
70	112	р	
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	у	
7A	122	Z	
7B	123	{	
7C	124	1	vertical slash
7D	125	}	alt mode
7E	126	~	(alt mode)
7F	127	DEL	delete, rubout

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

SECTION M

EXTENDED KEY CODE REFERENCE TABLE

KEY	AT SCAN CODE	PS2 SCAN CODE	3151	PREFIX/SUFFIX VALUE HEX = DECIMAL
Numeric -	7BH	4AH	7CH	9DH = 157
Numeric *	7CH	37H	00H	9EH = 158
Caps Lock	58H	3AH	14H	9FH = 159
Num Lock	77H	45H	00H	A0H = 160
Left ALT	11H	38H	00H	A1H = 161
Left CTRL	14H	1DH	11H	A2H = 162
Left Shift	12H	2AH	12H	A3H = 163
Right Shift	59H	36H	59H	A4H = 164
Print Screen	Multiple	00H	00H	A5H = 165
Tab	0DH	0FH	0DH	A6H = 166
Shift Tab	8DH	8FH	65H	A7H = 167
Enter	5AH	1CH	5AH	A8H = 168
ESC	76H	01H	08H	A9H = 169
Left ALT Make	11H	36H	00H	AAH = 170
Left ALT Break	11H	В6Н	00H	ABH = 171
Left CTRL Make	14H	1DH	00H	ACH = 172
Left CTRL Break	14H	9DH	00H	ADH = 173
* Left ALT + 1 character	11H	36H	00H	AEH = 174
* Left CTRL + 1 character	14H	1DH	00H	AFH = 175
* Send			58H	C0H = 192
Clear			6FH	C1H = 193
Jump			76H	C2H = 194
Send Line			7EH	C3H = 195
Erase EOF			6DH	C4H = 196
Send - Make Only			58H	C5H = 197

^{*} Example:

^{1&}lt;sup>st</sup> 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.



Ν

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.

SECTION N

CUSTOM DEFAULTS

German Post Defaults



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

Quantum Pharmacy Defaults



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

Wincor Nixdorf, QuantumE Defaults



Scan this code followed by the "Recall Defaults" code to enable and load Wincor Nixdorf QuantumE Defaults. Wincor Nixdorf Defaults



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

Korean Mental Defaults



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

Auxiliary Wincor Nixdorf Plus Markets Defaults



Scan this code followed by the "Recall Defaults" code to enable and load Auxiliary Wincor Nixdorf Plus Markets Defaults.

N

SECTION N

CUSTOM DEFAULTS

Custom 21 Defaults



Scan this code followed by the "Recall Defaults" code to enable and load Custom 21 Defaults.

Custom 22 Defaults



Scan this code followed by the "Recall Defaults" code to enable and load Custom 22 Defaults.

Custom 23 Defaults



Scan this code followed by the "Recall Defaults" code to enable and load Custom 23 Defaults.



Custom Terminal FR1



For Serial Configuration 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 configuration mode. Scanning will be suspended and the scanner will respond with an ACK (06 Hex).
- 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).
- Transmit <STX>999999<ETX> through the Serial Port. This will cause
 the scanner to exit configuration mode and save the new settings. The
 scanner will beep 3 times and send an ACK (06 Hex).

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

SOFTWARE/SERIAL NUMBER

Software Number



The scanner will transmit its software revision.

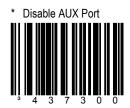
Scanner Information



This barcode will transmit the "main" & "interface coprocessor" software numbers as well as the scanner's serial number.

The data is output as barcode (formatted) data (ie. 15xxx/15xxx/9876543210, where x represents any non-numbered value).

Ν



AUX PORT AND SECONDARY DEVICE DATA FORMATS



The following section includes features that are not available with all Metrologic scanner models. Please contact a customer service representative for additional information and technical assistance.

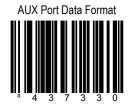
When using a Metrologic device as a secondary:

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 <u>not</u> a Metrologic scanner go to page O-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 *primary* scanner.



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SECTION O AUX PORT AND SECONDARY DEVICE DATA FORMATS

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



The following section includes features that are not available with all Metrologic scanner models. Please contact a customer service representative for additional information and technical assistance.

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

Scan the following bar code to enable the auxiliary port on the *primary* scanner.

AUX Port General RS-232 Format



Ιī

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

0

SECTION O

ADDITIONAL AUXILIARY PORT DATA FORMATS

i

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 Beetle Mode Data Format



Enable AUX Port with Reserved 1 Data Format



ADDITIONAL AUXILIARY PORT DATA FORMATS

Enable AUX Port with Stratos Decode Data Format



AUXILIARY PORT BAUD RATES

AUX 115200 Baud Rate



AUX 57600 Baud Rate



AUX 38400 Baud Rate



AUX 19200 Baud Rate



0

AUXILIARY PORT BAUD RATES

AUX 14400 Baud Rate



AUX 9600 Baud Rate



AUX 4800 Baud Rate



AUX 2400 Baud Rate



AUX 1200 Baud Rate



AUX 600 Baud Rate



AUX 300 Baud Rate



AUXILIARY PORT PARITY

AUX No Parity



AUX Mark Parity



* AUX Space Parity



0

AUXILIARY PORT PARITY

AUX Even Parity







AUXILIARY PORT STOP BITS/DATA BITS

AUX 1 Stop Bit



* AUX 2 Stop Bits



* AUX 7 Data Bits



AUX 8 Data Bits



AUXILIARY RTS/CTS AND MODE 7

Enable AUX RTS/CTS Handshaking



Disable AUX RTS/CTS Handshaking



Message AUX RTS/CTS



Character AUX RTS/CTS



Enable AUX Port Mode 7



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

Disable AUX Port Mode 7



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AUXILIARY D/E, F/L, AND M/O

Enable AUX "D/E" Commands



* Disable AUX "D/E" Commands



Enable AUX "F/L" Commands



* Disable AUX "F/L" Commands



Enable AUX "M/O" Commands



Disable AUX "M/O" Commands



AUXILIARY XON/XOFF AND ACK/NAK

* Enable AUX XON/XOFF Handshaking



Disable AUX XON/XOFF Handshaking



Enable AUX ACK/NAK Commands



Disable AUX ACK/NAK Commands

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AUXILIARY CTS AND RTS POLARITY

Normal AUX CTS Polarity



Flip AUX CTS Polarity



Normal AUX RTS Polarity



Flip AUX RTS Polarity



AUXILIARY SAME SYMBOL TIMEOUT

AUX has Same Symbol Timeout



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

No AUX Same Symbol Timeout





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

MAIN OUTPUT PORT AUXILIARY DATA FORMATS

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

Reserve Code 32

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



This code should not be used for the MS6720.

HoloTrak Decode Output AUX Data Format



UPC Supplemental Output AUX Data Format



Stratos Decode Output **AUX Data Format**



Code Select Output **AUX Data Format**



O

0

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



Beetle Mode AUX Data Format



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 xii.

O

AUXILIARY PORT CONTROLS

Prevent Beep From AUX



Prevent the main scanner from beeping when the barcode comes from the AUX port. This is the opposite of not beeping the AUX and letting the main scanner beep as verification of the barcode sent.



Allow the main scanner to beep when the barcode comes from the AUX port. This is the default condition.

Enable Full Speed USB



Load Integrated Full Speed USB IBM/OEM Defaults



The following codes can be used if the Load Integrated Full Speed USB IBM/OEM Defaults bar code has **not** been scanned.

Enable USB IBM ID



* Disable USB IBM ID



* Enhanced Code IDs



Legacy Code IDs



Reserved



* Normal USB Out



The following codes can be used if the Load Integrated Full Speed USB IBM/OEM Defaults bar code has **not** been scanned.

IBM OEM Scanner 4A00h



Full speed USB only.

IBM OEM Scanner 4B00h



Full speed USB only.

4A00h/6E00h Tabletop Scanner/Scale



* Enable USB Keyboard Emulation Mode



Enable Uni-Directional USB Serial Emulation Mode



Enable Bi-Directional USB Serial Emulation Mode



Ρ

Enable Low Speed USB



Enable Low Speed USB POS Defaults



Load Low Speed

External USB Defaults



Load Low Speed **Internal** USB Keyboard Defaults



For units labeled Low Speed (LS) USB.

Load Full Speed Keyboard Internal USB Defaults



For units labeled Full Speed (FS) USB.

The following bar codes are specific to the IS3480, MS3580 and the MS3780 unless otherwise noted.

Button Modes

 Button Click Pattern Switching Mode



Button Hold Pattern Switching Mode



Button Click Delay

15 Second Time Out †



10 Second Time Out †



5 Second Time Out †



† This feature is not available for the MS3780.



R

SECTION R

IS3480 / MS3580 / MS3780

The following bar codes are specific to the IS3480, MS3580 and the MS3780 (in-stand) unless otherwise noted.

Primary Scan Patterns

Primary Omni



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

Secondary Scan Patterns

Secondary Omni



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

Primary Raster



This bar code sets the primary pattern to horizontal raster.

Secondary Raster



This bar code sets the secondary pattern to horizontal raster.

Primary Single-Line



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

Secondary Single-Line



This bar code sets the secondary pattern to singleline for menu reading.

The following bar codes are specific to the MS3780 (out-of-stand) unless otherwise noted.

Primary Scan Patterns

Primary Omni, Out-of-Stand



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

Primary Raster, Out-of-Stand



This bar code sets the primary pattern to horizontal raster.

Primary Single-Line, Out-of-Stand



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

Secondary Scan Patterns

Secondary Omni, Out-of-Stand



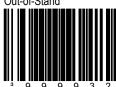
This bar code sets the secondary pattern to all scan lines on for omnidirectional reading.

Secondary Raster, Out-of-Stand



This bar code sets the secondary pattern to horizontal raster.

Secondary Single-Line, Out-of-Stand



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

R

SECTION R

The following bar codes are specific to the IS3480, MS3580 and the MS3780 unless otherwise noted.

Sweet Spot Mode

Enable Sweet Spot Mode



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



This feature is not available with the MS3580 or the MS3780.

CodeGate® (IS3480 / MS3580)

* Enable CodeGate





This barcode is not for use with the MS3780. Please see page R 6 for CodeGate options specific to the MS3780.

Depth of Field

Normal Depth of Field



Disable CodeGate



Reduced Depth of Field



The following bar codes are specific to the IS3480, MS3580 and the MS3780 unless otherwise noted.

IR Activation

IR Activation



* Disable IR Activation



TTL RS232

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

Enable TTL RS232



Disable TTL RS232



Invert TTL RxD and TxD



The TTL RxD and TxD pins idle at 0V

Std. TTL RxD and TxD

3 1 2 0 3 0 2

The TTL RxD and TxD pins idle at +5V

R

R

The following bar codes are specific to the MS3780 unless otherwise noted.

CodeGate (MS3780)

* Enable CodeGate Out-of-Stand, Primary Pattern Active



Disable CodeGate
Out-of Stand,
Primary Pattern Active



* Enable CodeGate Out-of-Stand, Secondary Pattern Active



Disable CodeGate Out-of Stand, Secondary Pattern Active



Enable CodeGate In-Stand



 Disable CodeGate In-Stand



The following bar codes are specific to the MS3780 unless otherwise noted.

Modes (MS3780)

Enable Normal Mode



Enable IR Activation Mode



Enable Trigger Mode



The following barcodes may be used for the Stratos Series and some Fusion or Voyager models. Please contact a customer service representative for additional information and technical assistance.

* ROM Emulation Version 1



ROM emulation version 1 is the default ROM emulation. The default ROM emulation varies with each scanner. This feature sends the ROM version information when asked by the host system.

ROM Emulation Version 3



ROM Emulation Version 5



ROM Emulation Version 2



ROM Emulation Version 4



ROM Emulation Version 6



SECTION S

PROTOCOL FORMATTING

ROM Emulation Version 7



ROM Emulation Version 8



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