Metrologic®

METROLOGIC INSTRUMENTS, INC.

MX009 USB Converter Programming Guide

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INTRODUCTION

Metrologic's MX009 USB Cable is a device that converts serial RS232 formatted data to either USB Keyboard or USB Point-of-Sale communication protocol. The MX009 can be used with all Metrologic products equipped with RS232 interface, as well as all versions of PowerLink compatible scanners. (All versions of Power Link compatible scanners are equipped with RS232 transmit and receive communication lines.)

- **HOW DOES THE MX009 USB CABLE OPERATE?**

  The MX009 functions only with Metrologic scanners equipped with RS232 interface. Some older scanner models have only one interface available. For example, if your scanner is an MS951 with OCIA interface, the MX009 will not function with this product. However, all PowerLink compatible scanners are equipped with the ability to communicate RS232 independent of the interface purchased. (All PowerLink compatible scanners are easy to identify, because the cable is detachable). For a list of PowerLink compatible scanners, refer to page 4.

  The scanner transmits the scanned data via RS232 communication to the MX009. The MX009 then converts the data from RS232 to either USB Keyboard or USB Point-of-Sale.

- **WHAT IS THE DIFFERENCE BETWEEN USB KEYBOARD AND USB POINT-OF-SALE?**

  When the MX009 is set-up to communicate as a USB Keyboard, the scanned data will appear in the current application that is active on your PC. The data is entered just as if the keys were pressed on the keyboard.

  When the MX009 is set-up to communicate as a USB Point-of-Sale device, the data emulates serial (RS232) data through the use of a Metrologic developed driver. The device will then work with existing serial (RS232) applications. The drivers can be downloaded at:

  For Windows 2000/XP Operating Systems

  ftp://ftp.metrologic.com/pub/download/software/mtlgpos.zip

  For Windows 98 (Second Edition) Operating System

  ftp://ftp.metrologic.com/pub/download/software/mtlgpos98.zip

  The MX009 leaves the factory set for either USB Keyboard or USB Point-of-Sale. *Refer to pages 8 - 22* of this manual to determine the set-up of your MX009.

- **HOW IS THE MX009 CONFIGURED FOR USB KEYBOARD?**

  This guide contains the configuration bar codes necessary to ensure that the scanner communicates properly with the MX009. The scanner communicates using RS232 protocol. The default (RS232) settings of the scanner are as follows:

  - *For Non-PowerLink Scanners*
    9600 baud, 7 data bits, 2 stop bits and space parity
  - *For PowerLink Scanners*
    9600 baud, 8 data bits, 1 stop bits and no parity

  In addition, the scanner uses ACK/NAK and XON/XOFF software handshaking, and the data transmission ends with both *carriage return* and *line feed* suffixes.

  On non-PowerLink scanners, the 1st and 2nd prefixes are used to set the country of the keyboard.

NOTE #1

Please note, some of the older Metrologic products allow for a maximum of 2 prefixes. Because 2 prefixes are required for setting the country, custom prefixes cannot be set on these products. Please refer to the scanner configuration guide for the number of configurable prefixes available on your product.

Example #1: MS951, German Keyboard, Bar Code = 012345, No custom prefixes available.

Configuration:	<Ctl-V>	<D>	<012345>	<CR><LF>
	Pref #1	Pref #2	Data	Terminators

Data Transmitted = 012345<CR>

Prefixes #1 and #2 specify the German keyboard and the <CR> <LF> terminators are needed by the MX009 for framing the data. Only 2 custom prefixes are available on the MS951, MS6720, MS700, MS860, Tech Series, IS4120 and IS4220.

- **HOW IS THE MX009 CONFIGURED FOR USB POINT-OF-SALE (POS)?**

  This guide contains the configuration bar codes necessary to ensure that the scanner communicates properly with the MX009. The scanner communicates using RS232 protocol. The default (RS232) settings of the scanner are as follows:

  - *For Non-PowerLink Scanners*
    9600 baud, 7 data bits, 2 stop bits and space parity
  - *For PowerLink Scanners*
    9600 baud, 8 data bits, 1 stop bits and no parity

  In addition, the scanner uses ACK/NAK and XON/XOFF software handshaking, and the data transmission ends with both *carriage return* and *line feed* suffixes.

NOTE #2

When using USB Point-of-Sale, special prefixes are not required.

MX009 USB CABLE OPTIONS

MX009 USB KEYBOARD EMULATION CABLES

PART NUMBER	STRAIGHT / COILED	CONNECTOR TYPE: USB END	CONNECTOR TYPE: SCANNER END	COMPATIBLE SCANNER MODELS
MX009-2MA7	S	Type A	10-pin RJ45 Male	All versions of: MS6220, MS6520, IS6520, MS7100, MS7220, and MS9500.
	C			
MX009-2FA7	S	Type A	10-pin RJ45 Female	MS951-14, MS961-14, MS6720-14, IS4220-14, IS4220-81
	C			
MX009-2WA7	S	Type A	25-pin D-Sub Female	MS700-1, MS700-2, MS700-11, MS700-17, MS860-1, MS860-2, MS860-11, MS860-17
MX009-2MB7	S	Locking Type A	10-pin RJ45 Male	All versions of: MS6220, MS6520, IS6520, MS7100, MS7220, and MS9500.
	C			
MX009-2FB7	S	Locking Type A	10-pin RJ45 Female	MS951-14, MS961-14, MS6720-14, IS4220-14, IS4220-81
	C			
MX009-2WB7	S	Locking Type A	25-pin D-Sub Female	MS700-1, MS700-2, MS700-11, MS700-17, MS860-1, MS860-2, MS860-11, MS860-17,

MX009 USB POS CABLES

PART NUMBER	STRAIGHT / COILED	CONNECTOR TYPE: USB END	CONNECTOR TYPE: SCANNER END	COMPATIBLE SCANNER MODELS
MX009-2MA8	S	Type A	10-pin RJ45 Male	All versions of: MS6220, MS6520, IS6520, MS7100, MS7220, and MS9500.
	C			
MX009-2FA8	S	Type A	10-pin RJ45 Female	MS951-14, MS961-14, MS6720-14, IS4220-14, IS4220-81
	C			
MX009-2WA8	S	Type A	25-pin D-Sub Female	MS700-1, MS700-2, MS700-11, MS700-17, MS860-1, MS860-2, MS860-11, MS860-17
MX009-2MB8	S	Locking Type A	10-pin RJ45 Male	All versions of: MS6220, MS6520, IS6520, MS7100, MS7220, and MS9500.
	C			
MX009-2FB8	S	Locking Type A	10-pin RJ45 Female	MS951-14, MS961-14, MS6720-14, IS4220-14, IS4220-81
	C			
MX009-2WB8	S	Locking Type A	25-pin D-Sub Female	MS700-1, MS700-2, MS700-11, MS700-17, MS860-1, MS860-2, MS860-11, MS860-17

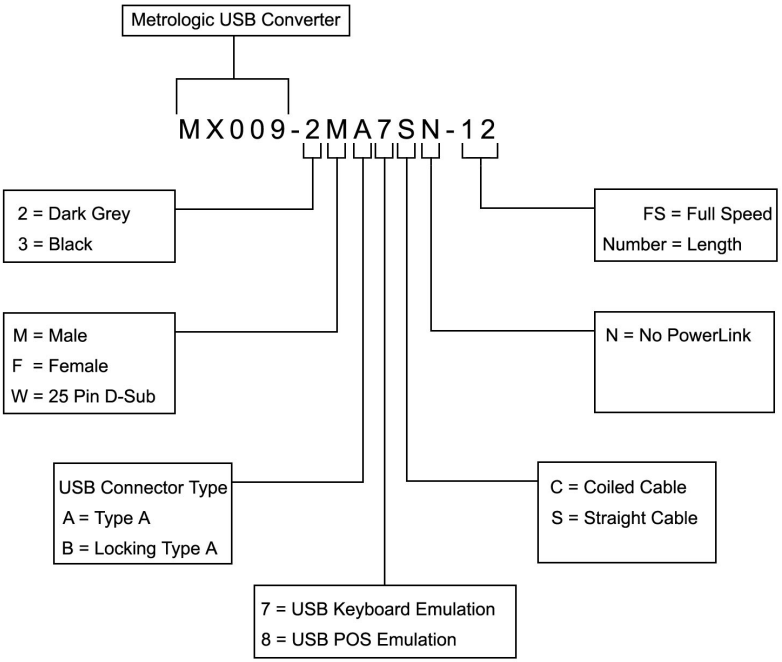
- **MX009 USB Converter Cable**

  MX009-2xx7x* USB Keyboard Emulation Cable
  or
  MX009-2xx8x* USB POS Emulation Cable

- **MX009 USB Converter Cable Programming Guide** †
  [MLPN 00-02574]

  † Available for download on Metrologic's website, www.metrologic.com.

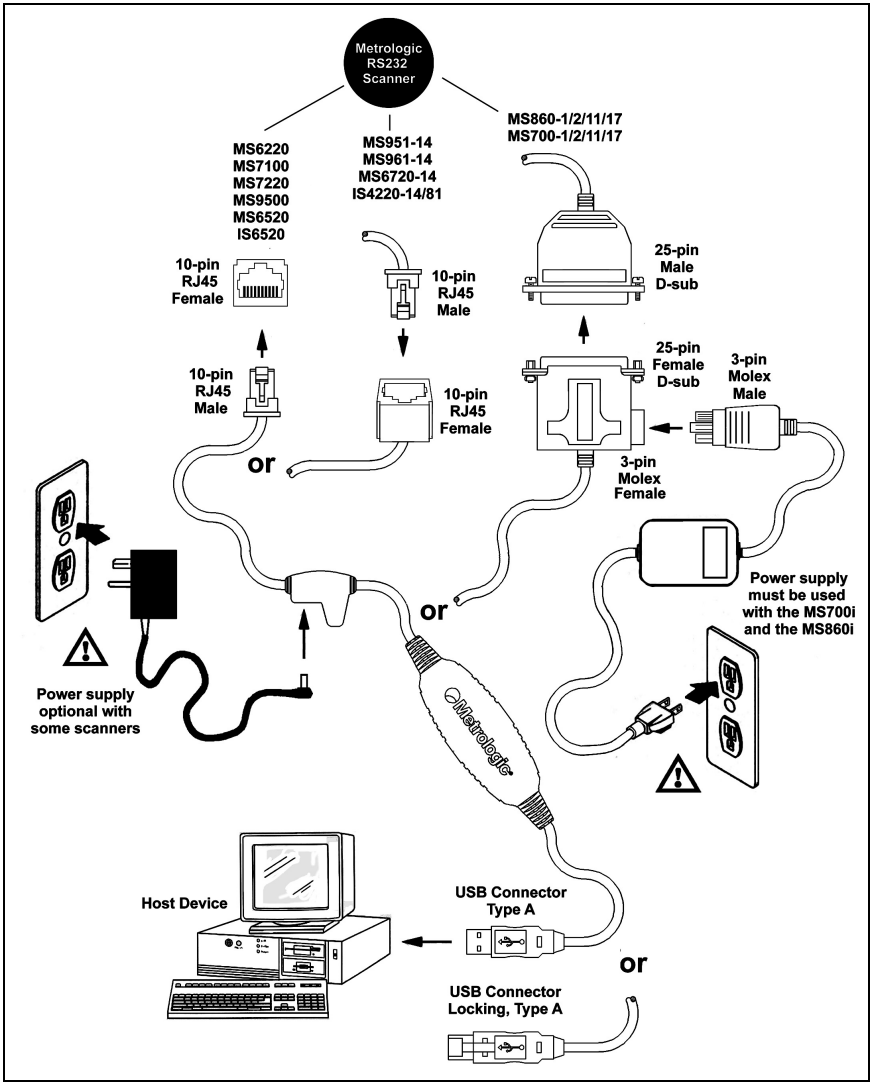
* PART NUMBER DESIGNATION



Optional Accessories

- **AC to DC Power Transformer**

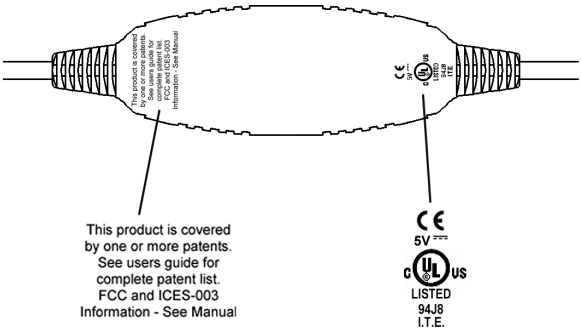
To order additional items, contact the dealer, distributor or call Metrologic's Customer Service Department at 1-800-METRO or 1-800-436-3876.



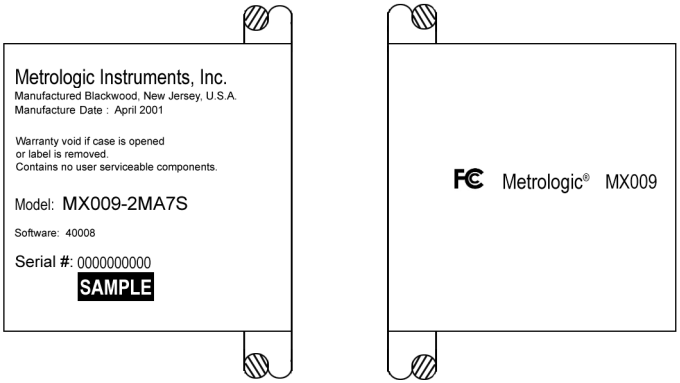
Make sure the AC input requirements of the power supply match the AC outlet. The outlet should be near the equipment and easily accessible.

LABELS

Each USB Converter has CE, UL and caution information embedded in the back of the case. The following is an example of this label.



Each USB Converter will also have a flag tag attached to the cable with manufacture date, model, and serial number.



** Illustrations shown are not actual size.

PowerLink Compatible Scanners

These Metrologic Scanners used with the MX009 Cable **must** be reconfigured using the following bar codes before the MX009 can communicate properly with a host system.

- MS9500 Voyager® Series
- MS7100 Orbit®
- MS7220 ArgusSCAN®
- MS6520 Cubit®
- IS6520 Cubit®
- MS6220 Pulsar®
- All MetroSelect Compatible Scanners

Note: USB Emulation programming must be completed before enabling/disabling any additional features documented in the programming guide provided with the scanner.

Important: When enabling/disabling additional features do not scan the *Recall Defaults* bar code or all USB Emulation programming will need to be reconfigured.

Scan the following bar codes in numbered sequence.

1. ENTER/EXIT PROGRAM MODE

2. RECALL DEFAULTS

3. LOAD USB DEFAULTS

Continued on next page.

4. Scan the appropriate bar code below to set USB Keyboard Emulation to the country keyboard required (*defaults to USA*).

USA

SWITZERLAND

SPAIN

ITALY

GERMANY

FRANCE

Continued on next page.

UNITED KINGDOM

BELGIUM

JAPANESE

IBM 4700 FINANCIAL KEYBOARD

SWEDEN/FINLAND

5.

ENTER/EXIT PROGRAM MODE

MS951, IS4120, AND IS4220

These Metrologic Scanners used with the MX009 Converter Cable **must** be reconfigured using the following bar codes before the MX009 can communicate with a host system.

Note: USB Emulation programming must be completed before enabling/disabling any additional features documented in the programming guide provided with the scanner.

Important: When enabling/disabling additional features do not scan the recall defaults bar code or all USB Emulation programming will need to be reconfigured.

Scan the following bar codes in numbered sequence.

1. ENTER/EXIT PROGRAM MODE

* *

2. RECALL DEFAULTS

D F 1

3. *ENABLE RS-232 INTERFACE

L P 2

4. ENABLE XON/XOFF

S H 4

5. ENABLE ACK/NAK

S H 2

6. 1ST PROGRAMMABLE PREFIX ID

R A T

7. Refer to the Prefix #1 column in the USB Keyboard Country Cross-Reference Table on Page 12. Scan the 3 Code Bytes associated with the required Country Keyboard.

Example

To set for Prefix #1 for Belgium:

1. Locate Belgium in the *Country* column of the table on page 12.
2. Check the Prefix #1 column next to Belgium to identify the required codes (022).
3. Go to Page 13 and scan code byte RB0, RB2, then RB2 again.

Continued on next page.

8. 2ND PROGRAMMABLE PREFIX ID

9. Refer to the Prefix #2 Column of the table below. Scan the 3 Code Bytes associated with the required country keyboard.

Example

To set Prefix #2 for Belgium:

1. Locate Belgium in the Country column of the table below.
2. Check the Prefix #2 column next to the Belgium to identify the required codes (065).
3. Go to Page 13 and scan code byte RB0, RB6, and RB5.

USB KEYBOARD COUNTRY CROSS-REFERENCE TABLE

COUNTRY	PREFIX #1	PREFIX #2	DESCRIPTION OF PREFIXES
	(decimal)	(decimal)	
Belgium	022	065	<CTRL V> A
U.K.	022	066	<CTRL V> B
French	022	067	<CTRL V> C
German	022	068	<CTRL V> D
Italian	022	069	<CTRL V> E
Spain	022	070	<CTRL V> F
U.S.	022	071	<CTRL V> G
Reserved	022	072	<CTRL V> H
Swiss	022	073	<CTRL V> I
Swedish/Finnish	022	074	<CTRL V> J
Japanese	022	075	<CTRL V> K
Reserved	022	076	<CTRL V> L

Continued on next page.

Scan the 3 code bytes associated with the required country keyboard.

RB0-0

RB1-1

RB2-2

RB3-3

RB4-4

RB5-5

RB6-6

RB7-7

RB8

RB9-9

10.

ENTER/EXIT PROGRAM MODE

MS6720, MS860, MS700, AND TECH SERIES

These Metrologic Scanners used with the MX009 Converter Cable **must** be reconfigured using the following bar codes before the MX009 can communicate properly with a host system.

Note: USB Emulation programming must be completed before enabling/disabling any additional features documented in the programming guide provided with the scanner.

Important: When enabling/disabling additional features do not scan the recall defaults bar code or all USB Emulation programming will need to be reconfigured.

Scan the following bar codes in numbered sequence.

1. ENTER/EXIT PROGRAM MODE

2. RECALL DEFAULTS

3. ENABLE RS-232

Continued on next page.

4.

ENABLE XON/OFF HANDSHAKING

5.

ENABLE ACK/NAK

6.

PROGRAMMABLE PREFIX #1

7.

CONTROL V PREFIX

8.

PROGRAMMABLE PREFIX #2

Continued on next page.

9. Scan **one** of the following bar codes to set Keyboard Emulation.

BELGIUM

UNITED KINGDOM

FRENCH

GERMAN

ITALIAN

Continued on next page.

SPANISH

UNITED STATES

SWISS

SWEDISH/FINNISH

JAPANESE

Continued on next page.

RESERVED

0 12345 00076 8

10.

ENTER/EXIT PROGRAM MODE

0 12345 66666 7

PowerLink Compatible Scanners

These Metrologic scanners **must** be reconfigured using the following bar codes before the MX009 can communicate properly with the host system.

- MS9500 Voyager Series
- MS7100 Orbit
- MS7220 ArgusSCAN
- MS6520 Cubit
- IS6520 Cubit
- MS6220 Pulsar
- All MetroSelect Compatible Scanners

Note: USB Emulation programming must be completed before enabling/disabling any additional features documented in the programming guide provided with the scanner.

Important: When enabling/disabling additional features do not scan the recall defaults bar code or all USB Emulation programming will need to be reconfigured.

Scan the following bar codes in numbered sequence.

1. ENTER/EXIT PROGRAM MODE

2. RECALL DEFAULTS

3. LOAD USB DEFAULTS

4. ENTER/EXIT PROGRAM MODE

MS951, IS4120, AND IS4220

These Metrologic scanners **must** be reconfigured using the following bar codes before the MX009 can communicate properly with a host system.

Note: USB Emulation programming must be completed before enabling/disabling any additional features documented in the programming guide provided with the scanner.

Important: When enabling/disabling additional features do not scan the recall defaults bar code or all USB Emulation programming will need to be reconfigured.

Scan the following bar codes in numbered sequence.

1. ENTER/EXIT

* *

2. RECALL DEFAULTS

D F 1

3. ENABLE RS-232 INTERFACE

L P 2

4. ENABLE XON/XOFF

S H 4

5. ENABLE ACK/NAK

S H 2

6. ENTER/EXIT

* *

Continued on next page.

MS6720, MS860, MS700 AND TECH SERIES

These Metrologic scanners **must** be reconfigured using the following bar codes before the MX009 can communicate properly with a host system.

Note: USB Emulation programming must be completed before enabling/disabling any additional features documented in the programming guide provided with the scanner.

Important: When enabling/disabling additional features do not scan the recall defaults bar code or all USB Emulation programming will need to be reconfigured.

Scan the following bar codes in numbered sequence.

1. ENTER/EXIT PROGRAM MODE

2. RECALL DEFAULTS

3. ENABLE RS232 MODE

Continued on next page.

4.

ENABLE XON/XOFF HANDSHAKING

0 12345 11714 5

5.

ENABLE ACK/NAK

0 12345 11713 8

6.

ENTER/EXIT PROGRAM MODE

0 12345 66666 7

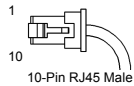
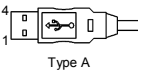
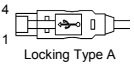
The following guide is for reference purposes only. Contact a Metrologic representative at 1-800-ID-METRO or 1-800-436-3876 to preserve the limited warranty terms on page 26.

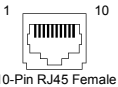
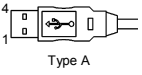
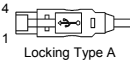
Test Bar Code
Scanning the following bar code will transmit the encoded characters followed by the software number of the MX009.

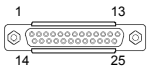
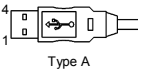
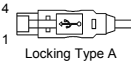
SYMPTOMS	POSSIBLE CAUSE(S)	SOLUTION
No LEDs, beep or laser	No Power is being supplied to the scanner	Make sure the cable is plugged into the scanner. Check the transformer (if one is supplied), the outlet and power strip.
No LEDs, beep, or laser	No power is being supplied from the USB port.	The MX009 requests 100mA from the USB port. If the USB port cannot supply this, a notification window will appear on the screen.
After scanning a bar code, the Red and Green LEDs are on, but no data is being transmitted to the host.	The scanner is not programmed properly for communication to the MX009.	Re-program the scanner using the appropriate codes for your scanner model (Refer to pages 8-22).
USB Keyboard Emulation		
After scanning a bar code, the scanner beeps, but the characters appear incorrectly in your application.	The scanner is not programmed correctly. The incorrect country has been selected.	Re-program the scanner using the appropriate codes for your scanner model (Refer to pages 8-22).
The scanner powers up, but does not scan and/or beep.	Scanning a particular bar code symbology that is not enabled.	UPC/EAN, Code 39, Interleaved 2 of 5, Code 93, Code 128 and Codabar are enabled by default. Verify that the type of bar code being read is enabled.

	MX009 USB CONVERTER CABLE SPECIFICATIONS
MECHANICAL	
Dimensions:	80.4 mm (3.2”) L x 32.4 mm (1.3”) W x 18.7 mm (0.7”) H
Weight:	160 g (0.35 lb)
Termination:	10-pin modular RJ45 Male to USB 10-pin modular RJ45 Female to USB. 25-pin Female D-Sub to USB
Cable:	Straight or Coiled
ELECTRICAL	
Input Voltage:	5.0 VDC ± 0.25V
EMC:	FCC, ICES-003 & EN 55022 Class B
ENVIRONMENTAL	
Temperature:	Operating: 0°C to 40°C (32°F to 104°F)
	Storage: -40°C to 60°C (-40°F to 140°F)
Humidity:	5% to 95% relative humidity, non condensing
Contaminants:	Sealed to resist airborne particulate contaminants
Ventilation:	None required

Specifications subject to change without notice.

Scanner Connector End		USB Connector End		
 10-Pin RJ45 Male		 Type A	or	 Locking Type A
Pin	Function	MX009-2MA7x and MX009-2MA8x		MX009-2MB7x and MX009-2MB8x
1	Ground	x = C (coiled) or S (Straight) cable		
2	TXD			
3	RXD			
4	RTS	Pin	Function	
5	CTS	1	Vbus	
6	DTR/LP	2	D-	
7	Reserved	3	D+	
8	LP Data	4	Ground	
9	+5 VDC From Transformer			
10	SHD/GND			

Scanner Connector End		USB Connector End		
 10-Pin RJ45 Female		 Type A	or	 Locking Type A
Pin	Function	MX009-2FA7x and MX009-2FA8x		MX009-2FB7x and MX009-2FB8x
1	Ground	x = C (coiled) or S (Straight) cable		
2	TXD			
3	RXD			
4	RTS	Pin	Function	
5	CTS	1	Vbus	
6	DTR/LP SRC	2	D-	
7	Reserved	3	D+	
8	LP Data	4	Ground	
9	+5 VDC From Transformer			
10	SHD/GND			

Scanner Connector End		USB Connector End		
 25 Pin Female D-Sub		 Type A	or	 Locking Type A
Pin**	Function	MX009-2WA7x and MX009-2WA8x		MX009-2WB7x and MX009-2WB8x
2	RS232 Receive	x = C (coiled) or S (Straight) cable		
3	RS232 Transmit			
7	Signal Ground			
13	Earth Ground	Pin	Function	
14	Power GND #1	1	Vbus	
19	Power In	2	D-	
25	Power GND #2	3	D+	
** Pins not shown are “No Connect”.		4	Ground	

LIMITED WARRANTY

The MX009 USB Converter Cables are manufactured by Metrologic at its Blackwood, New Jersey, U.S.A. facility. The MX009 USB Converter Cables have a two (2) year limited warranty from the date of manufacture. Metrologic warrants and represents that all MX009 USB Converter Cables are free of all defects in material, workmanship and design, and have been produced and labeled in compliance with all applicable U.S. Federal, state and local laws, regulations and ordinances pertaining to their production and labeling.

This warranty is limited to repair, replacement of Product or refund of Product price at the sole discretion of Metrologic. Faulty equipment must be returned to the Metrologic facility in Blackwood, New Jersey, U.S.A. or Puchheim, Germany. To do this, contact Metrologic's Customer Service/Repair Department to obtain a Returned Material Authorization (RMA) number.

In the event that it is determined the equipment failure is covered under this warranty, Metrologic shall, at its sole option, repair the Product or replace the Product with a functionally equivalent unit and return such repaired or replaced Product without charge for service or return freight, whether distributor, dealer/reseller, or retail consumer, or refund an amount equal to the original purchase price.
This limited warranty does not extend to any Product which, in the sole judgement of Metrologic, has been subjected to abuse, misuse, neglect, improper installation, or accident, nor any damage due to use or misuse produced from integration of the Product into any mechanical, electrical or computer system. The warranty is void if the case of Product is opened by anyone other than Metrologic's repair department or authorized repair centers.

THIS LIMITED WARRANTY, EXCEPT AS TO TITLE, IS IN LIEU OF ALL OTHER WARRANTIES OR GUARANTEES, EITHER EXPRESS OR IMPLIED, AND SPECIFICALLY EXCLUDES, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE UNDER THE UNIFORM COMMERCIAL CODE, OR ARISING OUT OF CUSTOM OR CONDUCT. THE RIGHTS AND REMEDIES PROVIDED HEREIN ARE EXCLUSIVE AND IN LIEU OF ANY OTHER RIGHTS OR REMEDIES. IN NO EVENT SHALL METROLOGIC BE LIABLE FOR ANY INDIRECT OR CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGES TO PERSON OR PROPERTY, OR EFFECT ON BUSINESS OR PROPERTY, OR OTHER DAMAGES OR EXPENSES DUE DIRECTLY OR INDIRECTLY TO THE PRODUCT, EXCEPT AS STATED IN THIS WARRANTY. IN NO EVENT SHALL ANY LIABILITY OF METROLOGIC EXCEED THE ACTUAL AMOUNT PAID TO METROLOGIC FOR THE PRODUCT. METROLOGIC RESERVES THE RIGHT TO MAKE ANY CHANGES TO THE PRODUCT DESCRIBED HEREIN.

North America Headquarters

Metrologic Instruments, Inc. 90 Coles Road Blackwood, NJ 08012-4683	Customer Service: 1-800-ID-METRO Tel: 856-228-8100 Fax: 856-228-6673 Email: info@metrologic.com Website: www.metrologic.com

Germany

Metrologic Instruments GmbH Dornierstrasse 2 82178 Puchheim b. Munich, Germany	Tel: 49-89-89019-0 Fax: 49-89-89019-200 Email: info@europe.metrologic.com

TESTED TO COMPLY
WITH FCC STANDARDS
FOR HOME OR OFFICE USE

Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio TV technician for help

Any unauthorized changes or modifications of this equipment could void the users authority to operate this device.

Notice

This Class B digital apparatus complies with Canadian ICES-003.

Avertissement

Cet appareil numérique de la class B est conforme à la norme NMB-003.

DECLARATION OF CONFORMITY

According to 47 CFR, Part 2 and 15 for Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers:

We: Metrologic Instruments, Inc.

Located at: 90 Coles Road
Blackwood, NJ 08012

Telephone: 856-228-8100

Declare under sole responsibility that the product identified herein, complies with 47 CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed is identical to the representative unit tested and found to be in compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quality production and testing on a statistical basis as required by 47 CFR § 2.909. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name: METROLOGIC

Type of Product: Bar Code Scanner

Model: MX009 alphanumeric suffix may follow.

Patents

This Metrologic product has US Patents pending. No license right or sublicense is granted, either expressly or by implication, estoppel, or otherwise, under any METROLOGIC or third party intellectual property rights (whether or not such third party rights are licensed to METROLOGIC), including any third party patent listed above, except for an implied license only for the normal intended use of the specific equipment, circuits, and devices represented by or contained in the METROLOGIC products that are physically transferred to the user, and only to the extent of Metrologic's license rights and subject to any conditions, covenants and restrictions therein.

Other worldwide patents pending.

Some Metrologic scanners require alternate programming steps than the steps found on pages 8-10 and 19. If your scanner was manufactured before May 2002 or does not accept the standard programming sequences, you may need to use one of the alternate programming methods listed on the following pages. *Contact a Metrologic customer service representative to help determine if your scanner requires one of these methods*.

Alternate Programming for USB Keyboard Emulation (MX009-2xx7x) PowerLink Compatible Scanners

1.

ENTER/EXIT PROGRAM MODE

2.

RECALL DEFAULTS

3.

ENABLE RS-232 MODE

4.

ENABLE XON/XOFF HANDSHAKING

5.

ENABLE ACK/NAK

6.

CONTROL V

7.

*Enable LF Suffix

8. Scan the appropriate bar code below to set USB Keyboard Emulation to the country keyboard required.

BELGIUM

UNITED KINGDOM

FRANCE

GERMAN

ITALIAN

SPANISH

UNITED STATES

RESERVED

SWISS

SWEDISH/FINNISH

JAPANESE

RESERVED

9.

ENTER/EXIT PROGRAM MODE

Alternate Programming for USB POS Emulation (MX009-2xx8x)
PowerLink Compatible Scanners

1.

ENTER/EXIT PROGRAM MODE

2.

RECALL DEFAULTS

3.

ENABLE RS-232 MODE

4.

ENABLE XON/XOFF HANDSHAKING

5.

ENABLE ACK/NAK

Continued on next page.

6.

*ENABLE LF SUFFIX

7.

ENTER/EXIT
PROGRAM MODE

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