## MDI-3100/4100 2D Image Scanner Quick Setup Guide



### **Scanner Maintenance**

The scanner is designed for long-term trouble-free operation and rarely requires any maintenance. Only an occasional cleaning of the scanner window is necessary in order to remove dirt and fingerprints.

Wipe the scan window with a soft lint-free cloth and a non-abrasive cleaner to avoid the scan window from being scratched and damaged. The scan window can be cleaned while the scanner is running.

The standard interface cable is attached to the scanner with a 10-pin modular connector. When the connector is properly seated, it is secured in the scanner by a flexible retention tab. The cable is designed to be field replaceable. Replacement cables can be obtained from your authorized distributor. To replace the cable, take the following steps.

- Make sure the power of both the host terminal and the scanner is powered off.
- 2. Disconnect the old scanner cable from the host terminal.
- 3. Press down the retention tab, and gently pull out the cable.
- 4. Insert the new interface cable into the bottom of the scanner until it clicks. Plug the new cable into the host.

# **Programming Codes**

Below are some suggestion you need to bear in mind while scanning labels:

- 1. The barcode labels shown in bold and black are default factory settings.
- 2. Please cover the unwanted codes for scanning the specific barcode required for the programming to prevent confusion in code scanning.
- 3. Use the user manual downloaded from our global website or taken from the Information DVD for advanced programming.
- 4. Two operational modes, *Auto Trigger* and *Manual Trigger*, are provided to help you manage your daily activities more efficiently via 2D Image Scanner. **By default, the scanner is set to Auto Trigger.**
- 5. While scanning the setup barcode labels provided in the quick guide, you need to pull the trigger to initiate the decoding process.
- 6. Please scan barcode within a scan range of 130mm to ensure barcode data can be detected successfully.

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# **Trouble Shooting**

This section contains information about how to solve problems that you may encounter when operating the scanner. If a trouble occurs, please refer to the following diagnostic tips as a mean to solve the trouble. However, before referring to the tips, make sure that the scanner is installed well. If the problem remains, contact your dealer.

Problem	Diagnostic Tips	
The scanner is on but cannot read	The scanner window is dirty. Clean the scanner	
any barcode.	window as described in the Scanner	
•	Maintenance section.	
	The presented barcode type is not enabled. Use	
	this guide to tell the scanner to accept that type	
	of barcode.	
	The host terminal has disabled the scanner.	
	Check the setup of host terminal.	
	The barcode type presented is not supported by	
	the scanner.	
The scanner does not accept more	Determine whether the required barcode types	
than two or three barcode labels.	are enabled or not.	
	A stray barcode is sitting somewhere in the	
	scanner field of view. Remove all barcode labels	
	from the scanner's scan volume and try again.	
	The scanner cannot send the data to the POS	
	system. Make sure that the scanner is installed	
	well and your host POS system is ready to	
	receive data.	
A barcode is read by the scanner	The communication settings of the system port	
but not accepted by the POS	and the scanner do not match. Adjust the setting	
system.	to make them match to each other.	
	The scanner is not installed well. Contact your	
	dealer for the proper installation. The software	
	running on the POS system does not support the	
	data format of the barcode label.	
When a barcode stays close to the	Check whether or not you have enabled the	
scanner, the barcode cannot be read	d Manual Trigger mode. If you have enabled this	
automatically by the scanner.	mode accidentally, please disable the Manual	
	Trigger mode by scanning the "Disable trigger"	
	barcode in the advanced user manual.	

### **Firmware Version**

Scan the below barcode label to retrieve the current firmware version.

Firmware Version



# **User Interface Switch Barcodes with Defaults Setting**

Three types of user interface, including USB-HID, and USB virtual COM, are available for you to select. However, after the interface type is changed, the current settings will be removed and reset to the default factory settings. To verify your configuration, it is suggested to reboot the terminal to achieve the purpose.

If the scanner fails to switch to the desired interface type, please restart your host terminal, and then scan the same barcode label to resolve the problem.

USB-HID



**USB-VCP** 



# **Restore to Factory Default Settings**

To restore the default factory settings, please select one of three barcodes listed below.





**USB-VCP** 



# **Buzzer settings for SA-series model**

Disable Buzzer



Enable buzzer



Buzzer loudness: Normal



Buzzer loudness: Loud



# Buzzer settings for HC/HS-series models

Disable buzzer



**Enable buzzer** 



Single tone buzzer



High - low buzzer



Low - high buzzer



**Buzzer duration 200 msec** 



### Buzzer duration 400 msec





**Buzzer loudness: Maximum** 

Buzzer loudness: Loud



Buzzer loudness: Normal



Buzzer loudness: Minimum



**Buzzer before transmission** 



Buzzer after transmission



Disable startup buzzer



Enable startup buzzer



## **Auto Trigger Detection Mode**

Detection Mode allows you to adjust illumination settings to facilitate the process of detecting a target code. Through the configurable option, the status of aiming light can be set to enable or disable. What is more, you may also arrange the color of illumination in response to the lighting condition to enhance your scanning performance. However, please be reminded that **Detection Mode only works under the condition that Trigger Mode of 2D Image Scanner is set to Auto Trigger.** 

Regarding each type of available detection modes, the following are related description for your reference.

- ➤ Green aiming detection
  When a target code falls within the aiming range while the green aiming light is emitted, the target is detected. It is recommended to use this mode indoors because the detectability is reduced in an environment of higher illuminance levels than indoor's.
- Red/White illumination detection
  When a target code falls within the range of the field of view while
  the red/white illumination light is emitted, the target is detected. This
  mode can be used in a lighted environment.
- No illumination detection
  A target code is detected without illumination light. The power consumption can be reduced, but the response of detection will also be reduced. Ambient light is used for detection in this mode, so this cannot be used in a dark place while it can be used in a lighted environment.

### Green aiming detection



Red/White aiming detection



No illumination detection



# **Enabling of readable codes**

### **Enable UPC**



### **Enable EAN**



### **Enable Code 39**



### **Enable Codabar**



### **Enable Interleaved 2of5**



### Enable Chinese Post Matrix 2of5



### **Enable POSTNET**



# Enable MSI/Plessey



# Enable UK/Plessey



### Enable Code 128



### Enable GS1-Databar



Enable GS1-Databar Limited



Enable GS1-Databar Expanded



**Enable QR Code** 



### **Enable PDF417**



# **Setting code specific options**

UPC-A, No leading zero, transmit CD



UPC-A, No leading zero, not transmit CD



UPC-A, Leading zero, transmit CD



UPC-A, Leading zero, not transmit CD



# **Options for UPC-E**

UPC-E, No leading digit, transmit CD



UPC-E, No leading digit, not transmit CD



UPC-E, Leading digit, transmit CD



UPC-E, Leading digit, not transmit CD



# **Options for EAN-13 and EAN-8**

EAN-13 not transmit CD



**EAN-13 transmit CD** 



EAN-8 not transmit CD



**EAN-8 transmit CD** 



**Disable ISBN translation** 



**Enable ISBN translation** 



# **Case conversion**

No case conversion



Convert to upper case



Convert to lower case



# Floodlight and aiming options

Disable floodlight



**Enable floodlight** 



Alternating floodlight



# Keyboard wedge/USB options

With keyboard



Without keyboard



# Keyboard language

US



German



French



Dutch



Japanese



# **Special options**

Do not use numpad



Use numpad



Auto numlock mode



No CAPSLOCK mode



CAPSLOCK mode



### Auto CAPSLOCK mode



# Intercharacter delay for wedges/USB

No delay



Delay = 1



Delay = 3



Delay = 5



Delay = 7



Delay = 9



# **Specifications**

Item		Characteristics
Scan method	CMOS area sensor	Global shutter
	(black and white)	
Number of effective pixel	(H) x (V)	640 x 480 dot
Image capture speed (*1)	Frame rate	100 fps
Focal distance	From the front edge of scan	120 mm
	engine	
Depth of field (mm)	Code 39	45~120mm
		(Resolution(0.127))
		60~240mm
		(Resolution(0.25))
		80~260mm
		(Resolution(0.33))
	Code 128	65~210mm
		(Resolution(0.25))
	UPC	45~300mm
		(Resolution(0.33))
	PDF417	30~210mm
		(Resolution(0.25))
	QR Code	30~240mm
		(Resolution(0.381))
	DataMatrix	35~160mm
		(Resolution(0.31))
View angle	Diagonal	Approx. 46.4°
	Horizontal	Approx. 38.0°
	Vertical	Approx. 26.4°
Auxiliary light source	Color	Warm white LED
(LED x 1)	Color Temperature	2600 ~ 3700K
Light Source for aiming	Color	Green LED
(LED x 1)	Peak Wave Length	525 nm

<sup>\*1</sup> The fastest speed of image capture

# **<MEMO>** 15

# **<MEMO>** 16