

1 **Regulatory items**



This device may not cause harmful interface, and (2) This device must accept any interface received, including interface that may cause undesirable operation. CE: This product conforms to the following standards EMC:EN55022:2006+A1:2007, class B EN55024:1998+A1:2001+A2:2003

FCC: This device complies with Part 15 of the FCC Rules, (1)

BSMI : This device is compliant with requirement of BSMI and granted ID No. R3A078

This device is compliant with the requirements of the European Union Restriction on the use of Hazardous Substances (RoHS) Directive, 2002/95/EC.

2 Connecting the scanner

RS232

- 1) Disconnect power to the terminal/computer.
- 2) Connect the external power supply (DC adapter) to the serial interface cable of the scanner.
- 3) Plug the serial connector into the serial port on the back of your computer/terminal. Tighten the two screws to secure the connector to the port.
- 4) Plug the power pack into power source.
- Once the scanner has been fully connected, turn the terminal / computer power back on. 5)

USB (HID)

- 1) Connect the USB cable between scanner and PC.
- Windows will automatically detect the USB device. 2)

USB (Virtual-COM)

- Install driver, USB Serial Emulation Driver, from CD-ROM, The driver will use the next available COM port number 1)
- 2) Connect the USB cable between scanner and PC.
- 3) Windows will automatically detect the USB device.

Note: If any of the above operation is incorrect, turn off the power immediately and check any improper connections. Go through all above steps again.

3 Interface Selection

This decoder built-in scanner comes in one model and supports interfaces such as RS232 serial, USB virtual COM and USB HID. In most of the cases, simply selecting an appropriate cable and configure the proper interface by following interface selection.

Interface selection: You can change factory interface default (USB Virtual COM) for other type interface. By plugging different cables, setting right interface, then scan the interface barcode, power cycle the scanner will be changed to another interface. However, you must make sure which cable you need.



RS-232 Interface



USB HID (PC)



USB HID (MAC)

*USB Virtual COM



Aiming the Scanner 4

The engine has a view finder that projects a bright red or green aiming beam that corresponds to the engine's horizontal field of view. The aiming beam should be centered over the bar code, but it can be positioned in any direction for a good read.

Linear bar code



 The aiming beam is smaller when the engine is closer to the code and larger when it is farther from the code. Symbologies with smaller bars or elements (mil size) should be read closer to the unit. Symbologies with larger bars or elements (mil size) should be read farther from the unit. To read single or multiple symbols Linear bar code 2D Matrix symbol (on a page or on an object), hold the engine at an appropriate distance from the target, send a trigger command, and center the aiming beam on the symbol. If the code being scanned is highly reflective (e.g., laminated), it may be necessary to tilt the code +5° to prevent unwanted reflection.



5 Scanning mode

Scanning output: You can set the image size to a VGA resolution to accommodate older applications that require a smaller image size. When Image VGA is set to On, the resultant image is 640x480 pixels. When Image VGA is Off, the image is 752x480 pixels.

Manual/Serial Trigger Mode: You can activate the imager either by providing an external hardware trigger, or using a serial trigger command. When in manual trigger mode, the imager scans until a bar code is read, or until the hardware trigger is released.

When in serial mode, the imager scans until a bar code has been read or until the deactivate command is sent. In serial mode, the imager can also be set to turn itself off after a specified time has elapsed (see Read Time-Out, which follows).

Manual Trigger, Low Power (For RS-232 only): The imager powers down until the trigger is pulled. When the trigger is pulled, the imager powers up and operates until there is no triggering for the time set with the **Low Power Time-Out** bar code below. There is a delay of up to one second in operation when the imager is first triggered, but there is no delay when operating in low power time-out mode.

Low Power Time-Out Timer: Scan the Low Power Time-Out bar code to change the time-out duration (in seconds). Then scan the time-out duration (from 0-300 seconds) from the inside back cover, and **Save**. Default = 120 seconds. If the unit remains idle during the low power time-out interval, the unit goes into low power mode. Whenever the trigger is enabled, the low power time-out timer is reset.

Presentation Mode: This programs the imager to work in Presentation mode. The LEDs are either off or at the lowest power for ambient conditions until a bar code is presented to the imager. Then the LEDs turn on automatically to read the code. Presentation Mode uses ambient light to detect the bar codes. If the light level in the room is not high enough, Presentation Mode may not work properly.











6 Centering

Use Centering to narrow the imager's field of view to make sure the imager reads only those bar codes intended by the user. For instance, if multiple codes are placed closely together, centering will insure that only the desired codes are read. (Centering can be used in conjunction with Aimer Delay, for the most error-free operation in applications where multiple codes are spaced closely together. Using the Aimer Delay and Centering features, the imager can emulate the operation of older systems, such as linear laser bar code imagers. In the example below, the gray area is the full imager field of view and the white area is the centering window. Bar Code 1 will not be read, while Bar Code 2 will be.





The default centering window is a 128x96 pixel area (640x480 default image size) in the center of the imager's field of view. The following diagram illustrates the default top, bottom, left, and right pixel positions, measured from the top and the left side of the imager's field of view.



If a bar code is not within the predefined window, it will not be decoded or output by the imager. If centering is turned on by scanning **Centering On**, the imager only reads codes that intersect the centering window you specify using the **Top**, **Bottom**, **Left**, or **Right** bar codes. Scan **Centering On**, then scan one of the following bar codes to change the top, bottom, left, or right of the centering window. Then scan the percent you want to shift the centering window using digits on the inside back cover of this manual. Scan **Save**. Default Centering = 40% for Top and Left, 60% for Bottom and Right.



Standard Product Default Settings





7 Test Chart

(Bar code samples marked with symbol "*" are not enabled initially.)





ZBA Inc.



MaxiCode

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