
Area Imager Bar Code Scanner

CONFIGURATION GUIDE

For IG300/BT, IG700, VEGA V-1020/BT and FI300 models



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Note: Due to product improvement programs, specifications and features are subject to change without prior notice.

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Chapter 1 General Description

Thank you for purchasing this barcode scanner with an advanced and versatile decoder. The decoder works with variety of barcode types, reading devices, and computer interfaces. It discriminates over twenty different symbologies automatically.

This menu provides an easy way to configure the decoding options and interface selections by scanning bar codes listed in the menu.

FCC Approval



This device had been tested in accordance with the procedures and in compliance with Part 15 Subpart B of FCC Rules. And keeps all requirements according ANSI C63.4 & FCC Part 15 B Regulation and CISPR22 Class B.

CE Standards



The CE mark as shown here indicates this product had been tested in accordance with the procedures given in European Council Directive 2004/108/EC and confirmed to comply with the Europe Standard EN55022:2006:Class B, EN 55024: 1998 + A1: 2001 + A2: 2003, IEC61000-3-2:2006, IEC61000-3-3:1995+A1:2005, IEC61000-4-2:2001, IEC61000-4-3:2006, IEC61000-4-4:2004, IEC61000-4-5: 2006, IEC61000-4-6:2001, IEC61000-4-8:2001, IEC61000-4-11:2004.

LEGISLATION AND WEEE SYMBOL

This marking shown on the product or its literature, indicates that it should not be disposed with other households wastes at the end of its working life. To prevent possible harm to the environment or human healthy from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable re-use of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase.

Chapter 2 Introduction

This document provide an easy way to program the decoding options and interface selections by scanning bar codes listed in this guide.

Important Notice

1. This document is in A5 size. Please check your printing setting before printing it out.
2. When printing barcodes for programming, the use of a high-resolution laser printer is strongly suggested for the best scan result.
3. The settings shall be updated periodically without prior notice. For the latest version, please contact your authorized distributor.

Factory Default Setting

The factory default settings are shown with < > and bold in the following sections. You can make your own settings by scan a series of selected barcode patches in this manual to affect setup and programming of your handheld 2D Image Reader.

By scanning “Set All Defaults” Label, the settings will go back to the factory default settings.

Settings and Programming

Scan a series of selected barcode patches in this manual to affect setup and programming of your handheld 2D Image Reader. Decoding options and interface protocols can be tailored to a specific application.

Setup parameters are stored in non-volatile memory in the scanner and are retained even when power is off. Setup parameters change only when you reset them.

You may need to hide adjacent code patches with your hand when doing programming scanning.

Chapter 3 User Preferences

3.1 RETURN TO DEFAULT

You can scan this programming code to restore the wired scanner's and wireless cradle's parameters to factory default configuration.

Remark: this default setting is associated to configuration in Chapter 3.

Set the scanner/cradle to Factory Default



You can scan this programming code to restore the bluetooth's parameters to factory default configuration.

Remark: this default setting is associated to configuration in Chapter 4, no effect for wired models.

Restore the Bluetooth to Factory Default



3.2 GET FIRMWARE VERSION

Display the firmware version of the scanner, please scan below barcode.

Imager Engine Firmware Version



Control Board Firmware Version



3.3 INTERFACE SELECTION

Keyboard mode



RS232 Serial Mode



<USB HID Mode>

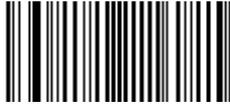


USB Com Port Mode



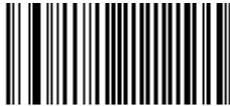
3.4 SCANNING TRIGGERING

<Level>



A reading session begins (lighting and decode processing on) when beam is activated and stops when beam is deactivated.

Continuous Scanning



When the scanner is turned on a continuous reading session begins (lighting and decode processing on).

Pulse



A reading session begins when beam is activated and stays on until a period of inactivity lasting the time specified by the timeout. After the timeout, the scan engine turns off.

Flashing



Flashing mode allows power up the lighting and decoding are on (no need to activate the trigger line) and after a period of inactivity lasting the time specified by the trigger timeout, the scanner starts flashing, checking for a bar code to be read.

When a bar code is detected, the lighting and decoding automatically turn on and stay on until another period of inactivity (timeout), after the timeout the scanner starts flashing again.

Autostand



This mode allows you to switch from Flashing trigger mode to Level trigger mode.

Autostand begins in flashing mode: At power up the lighting and decoding are on (no need to activate the trigger line) and after a period of inactivity lasting the time specified by the trigger timeout, the scanner starts flashing.

To switch to Level trigger mode activate the trigger line (press the trigger).

When in Level trigger mode, after a period of inactivity lasting the time specified by the trigger timeout, the scanner switches back to flashing mode.

Toggle



This mode allows lighting and decoding toggle when the trigger line is activated.

First trigger activation = lighting and decoding on,

Second trigger activation = lighting and decoding off.

Presentation



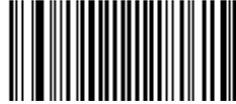
This mode allows power up lighting and decoding are on. After a period of inactivity lasting the time specified by the trigger timeout, the lighting turns off or is dimmed. When a new bar code is presented the lighting and decoding restart and stay on until another period inactivity.

3.5 TRIGGER TIME OUT

<2 sec>



4 sec



6 sec



3.6 IMAGER MODE

You can set the best reading performance of your VEGA by adjusting certain imager parameters. To choose the best reading performance, depends on the environment, your used application and type of barcodes.

- Area mode for decode 1D and 2D barcodes.
- Linear mode for decode 1D Barcodes.

Area mode allows you to set the position of the VEGA in any direction regardless of the orientation of the barcode, and perform a good read on 1D and 2D barcodes.

Linear mode allows you to increase your decoding speed while scanning 1D barcodes. But, you need to position the beam so that it falls across all bars in the 1D barcode.

Linear imager



<Area imager>



Area imager

Bright Environment



Area imager

With Reflective Surface

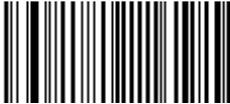


3.7 GOOD READ MODE

When active, the scan engine stops the reading session after a successful decoding.

- NOTE: this parameter is NOT used with continuous and continuous + flashing modes.

<Active>



Not Active



3.8 BUZZER BEEP TONE

3.8.1 Beep Tone Setup

<High>



Medium



Low



3.8.2 Good Read Beeps

<One Beep>



Two Beeps



None



3.8.3 Beep Duration

60 msec



<80 msec>



200 msec



Off



3.8.4 Timing

<During Transmission>



Before Transmission



After Transmission



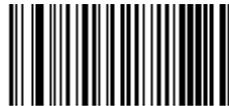
3.9 GOOD READ DURATION

3.9.1 Good Read LED Duration

<80 msec>



0.5 sec



1 sec



Off



3.9.2 Error Beep

<On>



Off



3.9.3 Setup Beep

<On>



Off



3.10 RS-232 MODE PARAMETERS

3.10.1 Baud rate

1200



2400



4800



9600



<19200>



38400



3.10.2 Data bits

Data bits 7



<Data bits 8>



3.10.3 Stop bits

<Stop bits 1>



Stop bits 2



3.10.4 Parity

<None>



Even



Odd



3.10.5 Handshaking

RTS/CTS Enable



<RTS/CTS disable>



ACK/NAK Enable



<ACK/NAK Disable>



XON/XOFF Enable



<XON/XOFF Disable>



3.11 KEYBOARD WEDGE MODE PARAMETER

3.11.1 Terminal Type

<IBM PC/AT,PS/2>



IBM PC/XT



IBM PS/2 25, 30



3.11.2 Capslock Detection

Enable



<Disable>



3.11.3 Upper/Lower Case

<No change>



Upper Case



Lower Case



3.11.4 Send Character by ALT Method

Enable



<Disable>



3.11.5 Select Numerical Pad

ON



<OFF>



3.11.6 Time out Between Characters

<0 ms>



5ms



10 ms



25 ms



50ms



100ms



3.11.7 Language Selection

<US English>



UK English



Italian



Spanish



French



German



Swedish



Switzerland



Hungarian



Japanese



Belgium



Portuguese



Denmark



Netherlands



Turkey



Reserved 1

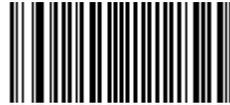


3.12 SYMBOLOGIES SELECTION

Australian Post ON



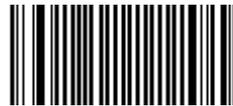
<Australian Post OFF>



AZTEC ON



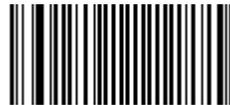
<AZTEC OFF>



BPO ON



<BPO OFF>



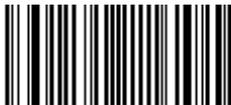
Canada Post ON



<Canada Post OFF>



CODABAR ON



Codablock A ON



Codablock F ON



CODE 11 ON



<CODE 39 ON>



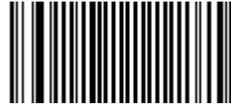
CODE 93 ON



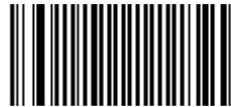
<CODABAR OFF>



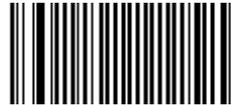
<Codablock A OFF>



<Codablock F OFF>



<CODE 11 OFF>



CODE 39 OFF



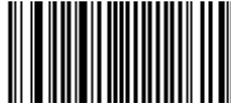
<CODE 93 OFF>



<CODE 128 ON>



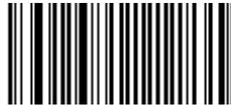
CODE 128 OFF



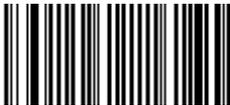
<GS1-128 ON>



GS1-128 OFF



<DATAMATRIX ON>



DATAMATRIX OFF



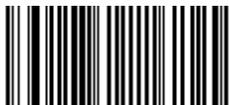
DataMatrix – Mirrored
labels activation On



**<DataMatrix–Mirrored
labels activation off>**



Dutch Post ON



<Dutch Post OFF>



<EAN-8 ON>



EAN-8 OFF



<EAN-13 ON>



EAN-13 OFF



<EAN 128 ON>



EAN 128 OFF



GS1 CC-A/B ON



<GS1 CC-A/B OFF>



GS1 CC-C ON



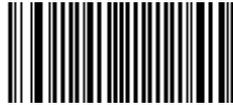
<GS1 CC-C OFF>



GS1 DataBar-Omni ON



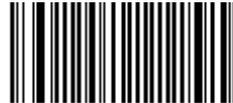
<GS1 DataBar-Omni OFF>



GS1 DataBar-Limited ON



<GS1 DataBar-Limited OFF>



GS1 DataBar-Expand ON



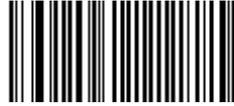
<GS1 DataBar-Expand OFF>



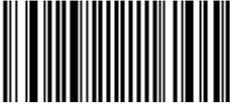
Infomail ON



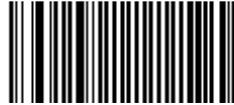
<Infomail OFF>



Interleave 2 of 5 ON



<Interleave 2 of 5 OFF>



Japan Post ON



<Japan Post OFF>



Matrix 2 of 5 ON



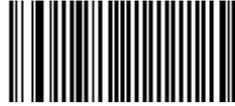
<Matrix 2 of 5 OFF>



MaxiCode ON



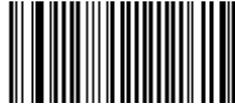
<MaxiCode OFF>



MicroPDF417 ON



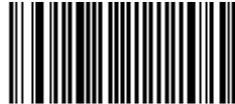
<MicroPDF417 OFF>



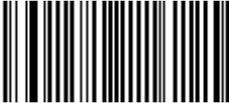
MSI ON



<MSI OFF>



<PDF417 ON>



PDF417 OFF



Planet ON



PLESSEY ON



Postnet ON



QR Code ON



Standard 2 of 5 ON



<Planet OFF>



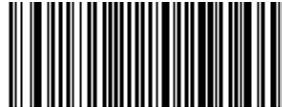
<PLESSEY OFF>



<Postnet OFF>



<QR Code OFF>



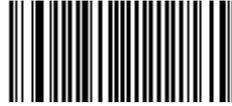
<Standard 2 of 5 OFF>



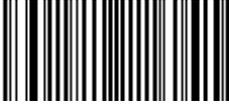
Sweden Post ON



<Sweden Post OFF>



Telepen ON



<Telepen OFF>



TLC 39 ON



<TLC 39 OFF>



<UPC-A ON>



UPC-A OFF



<UPC-E ON>



UPC-E OFF



Note: This step does not include codes for all support Barcode symbologies.

For a complete overview of support symbologies see appendix C.

If you need programming codes for symbologies which are not available in this chapter, please contact Scantech-ID Technical Support department or use VEGA utility tool.

3.13 MULTI CODE

The multicode function is used configure the scanner to read a series of bar codes and then transmit them all at once.

Follow these steps to setup the multicode function:

1. Activate the multicode function.
2. Select the number of bar codes to be included the multicode.

Active



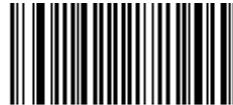
<Not Active>



Active Exclusive



Number of bar codes compose: 2



Number of bar codes compose: 3



Number of bar codes compose: 4



Number of bar codes compose: 5



Number of bar codes compose: 6



Postambles

The scanner can be programmed to output Barcode data according to the following format: [BAR CODE DATA] [POSTAMBLE STRING]

Postamble None



<CR+LF >



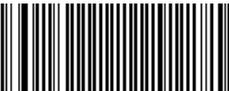
CR



LF



TAB



SP



3.15 UDSI TRANSMISSION

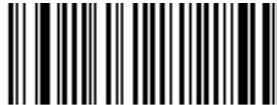
The user defined symbology identifier (UDSI) transmission for all symbologies are listed below.

Data Format: [UDSI Symbology ID] <data>

<Not Transmitted >



UDSI Transmitted



Symbology	Default Identifier
Australia Post	P3
Aztec	D3
BPO	P2
Canada Post	P6
Codabar	B7
Codablock A	K0
Codablock F	K1
Code 11	C1
Code 39	B1
Code 93/93i	B6
Code 128	B3
DataMatrix	D0
Dutch Post	P4
EAN-8	FF
EAN-13	F
GS1-128	C9
GS1 Composite A/B	G0
GS1 Composite C	G1

GS1 DataBar	C3
GS1 DataBar Limited	C4
GS1 DataBar Expanded	C5
Interleaved 2 of 5	B2
Japan Post	P5
Matrix 2 of 5	B4
MaxiCode	D2
MicroPDF417	C8
MSI Code	B8
PDF417	C7
Planet	P1
Plessey Code	C2
Postnet	P0
QR Code	D1
Standard 2 of 5	B5
Sweden Post	P7
Telepen	C6
TLC 39	H0
UPC-A	A0
UPC-E	E0

3.16 AIM SYMBOLOGY ID

The scanner activates all symbologies for the 3-character symbology identifier standardized by the Committee. The scanner can be programmed to output barcode data as the following format.

[AIM SYMBOLOGY ID] <DATA>

AIM Identifier Transmitted



< AIM Identifier Not Transmitted >



Chapter 4 Bluetooth Configuration

This Chapter is only adaptable for IG300BT and VEGA V-1020BT.

4.1 SCANNER MODE SELECTION

< SPP Master Mode >



- Please follow the steps to setup the communication between the scanner and cradle.
- 1) The scanner must scan “SPP Master Mode” barcode to set the scanner in master mode.
 - 2) Scan the Bluetooth MAC address code located on the bottom of the cradle.
 - 3) When the Bluetooth MAC address code was successfully scanned, scanner will sound 3 short beeps with green LED flash once.
 - 4) Wait approximately five seconds for completing the connection process with up-tone.
 - 5) If successful, blue LED of scanner will slow flash and the cradle will be continued on.

SPP Slave Mode



- Please follow the below steps to setup the communication between the scanner and Bluetooth application device.
- 1) The scanner must scan “SPP Slave Mode” barcode, to set the scanner in slave mode.
 - 2) When control the Bluetooth device to search the scanner, enter pin code (default 00:00:00) to setup comport.
 - 3) When scanner is successful connected, the scanner blue LED will also blink with up-tone. Blue LED will slowly flash to finish the setup.

HID Slave Mode



To setup the communication between the scanner and Bluetooth HID profile application device, follow the steps.

- 1) The scanner must scan “HID Slave Mode” barcode to set the scanner in HID slave mode.
- 2) When control the Bluetooth device to search the scanner, enter pin code to setup pairing. You can scan number barcode on Appendix A, “Decimal Value Table ” number 0~9, to setup.
- 3) When scanner is successful connected, scanner blue LED will also blink with up-tone. Blue LED will slowly flash to finish the setup.

4.2 OUT OF RANGE

When “Out of Range” function is enabled, and the scanner is working at out of transmission range, the scanned data will be stored to out-of-range memory. Memory size is approximately 25,000 sets of EAN13 barcode type. The all stored data will be transmitted to device when the link is reconnected



, and the all data stored in out-of-range memory will be cleared.

<Out of Range Enable>



Out of Range Disable

4.3 SLEEP MODE

The scanner is equipped with sleep mode function to save battery energy when the scanner is not used for 1 minute or 10 minutes. During sleep mode, all the functions and connection will be halted until pressing the trigger button. The communication with cradle or Bluetooth device will be reconnected.



Sleep Mode 1 min. On



Sleep Mode 10 min. On



<Sleep Mode Off >

4.4 BATCH MODE

“***” means “Quick Setting Label”. The function can be executed directly by scanning barcode instead of doing the general programming process.

Batch Mode On



< Batch Mode Off >



*** Batch Data Read



*** Batch Data Clear



***Delete Last Data



Firmware Version :

Display the firmware version of the scanner, please scan below barcode.

Scanner Firmware Version



Cradle Firmware Version



Scanner MAC Address



Cradle MAC Address



Appendixes

A. DECIMAL VALUE TABLE

0		1	
2		3	
4		5	
6		7	
8		9	
Enter			

B. ASCII TABLE

A		B		C	
D		E		F	
G		H		I	
J		K		L	
M		N		O	
P		Q		R	
S		T		U	
V		W		X	
Y		Z			

C. READABLE SYMBOLOGIES

1D Symbologies

Symbologies	Readable	Default Enable
EAN/UPC	<input type="radio"/>	<input type="radio"/>
UCC/EAN128	<input type="radio"/>	<input type="radio"/>
ISBN	<input type="radio"/>	
ISBT	<input type="radio"/>	
Code 11	<input type="radio"/>	
Code 39	<input type="radio"/>	<input type="radio"/>
Code 93/93i	<input type="radio"/>	
Code 128	<input type="radio"/>	<input type="radio"/>
Interleaved 2 of 5	<input type="radio"/>	
Matrix 2 of 5	<input type="radio"/>	
Industrial 2 of 5	<input type="radio"/>	
Standard 2 of 5	<input type="radio"/>	
Codabar	<input type="radio"/>	
MSI	<input type="radio"/>	
Plessey	<input type="radio"/>	
Telepen	<input type="radio"/>	
BPO	<input type="radio"/>	
Codablock	<input type="radio"/>	
Informail	<input type="radio"/>	
Planet	<input type="radio"/>	
TLC 39	<input type="radio"/>	
Postnet	<input type="radio"/>	
Postal codes	<input type="radio"/>	
GS1-128		<input type="radio"/>
GS1 CC-A/B/C	<input type="radio"/>	
GS1 DataBar Omnidirectional	<input type="radio"/>	
GS1 DataBar Limited	<input type="radio"/>	
GS1 DataBar Expanded	<input type="radio"/>	

2D Symbologies

Symbologies	Readable	Default Enable
Data Matrix	<input type="radio"/>	
PDF417	<input type="radio"/>	<input type="radio"/>
MicroPDF417	<input type="radio"/>	
Maxi Code	<input type="radio"/>	
QR code	<input type="radio"/>	
Aztec	<input type="radio"/>	
EAN.UCC composite	<input type="radio"/>	