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# VEGA V-1020BT Area Imager Handheld Bar code Scanner



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# **User's Installation and Configuration Manual**

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Scantech-ID BV reserves the right to revise this manual, and to make changes in the contents without obligation to notify any person or entity of the revision or change. A serial number appears on the product. Make sure that this official registration number has not been removed. It should be used whenever servicing by Scantech-ID BV or an authorized Scantech dealer is necessary.

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, may cause harmful interference to radio communication. 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 receiving antenna.

- 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 help.

You are cautioned that change or modification not expressly by the party responsible for compliance could void your authority to operate the equipment.

#### FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

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# Introduction

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*VEGA* is a cutting-edge gun-type barcode scanner which is designed specifically for retail market. To the brand new series of *VEGA*, we add on more user-friendly functions with detachable cable that makes it more easily to be operated by the customers.

Speaking of the performance, this scanner supports middle to long range operation. According to specification, *VEGA* supports the reading depth up to 440 mm, scan rate is up to 200 scans / per second in linear emulation or 56 images / per second in 2D mode.

The new *VEGA* scanner has most modern design with the decorative cover display on the top of the scanner that will enhance the looks of the checkout counter in the retail market. This magnificent design allowed end-users to display their product information or any relevant commercial message in the cover display. This advanced mechanical design truly creates a win-win solution for both POS retail systems and consumers.

In short, *VEGA* is absolutely a high performance gun-type scanner, which provides the customer with the most cost-effective solution in the market. It is perfectly suitable and definitely the best choice for any retailers using POS environment.

## Quality and Durability

The *VEGA* comes with the same top quality as all other Scantech-ID products. So at a very competitive price the same quality and performance of more expensive products is available. Due to the high MTBF times of every component a long and service free operation time is secured.

## Connectivity

The *VEGA* is available into interface types, RS232 interface, USB HID interface, Keyboard emulation interface and also with Bluetooth technology, so there is always a solution to connect the Vega to your POS system.

# Chapter 1 Product Safety

---

## 1.1 SAFETY & CAUTION

1. Please read the following safety statement carefully.
2. Please preserve this user manual for reference sometime.
3. Before cleaning the *VEGA*, the users must cut off all AC power. Do not use liquid or spray type of detergent to clean the *VEGA*. Please use dampish cotton cloth to clean the *VEGA*.
4. The outlet must set nearby the *VEGA* for connecting power easily.
5. Keep the *VEGA* dry to avoid short circuit.
6. During installation you must fix the equipment at solid table to avoid damage caused by falling.
7. Before inserting power please ensure the voltage is healthy to the equipment.
8. For safety please tie wire well and don't put anything on the wire.
9. If you don't use this equipment for long time, please cut off the power to avoid damage from surge power.
10. Don't spray any liquid on this scanner because it may cause a fire or short circuit.
11. Please do not open the equipment. For safety only the qualified serviceman can open the equipment.
12. If there are the following situations please contact with the qualified serviceman to check this equipment.
  - (a) The damage of wire or pin of power supply.
  - (b) Some Liquid infiltrate into the equipment.
  - (c) The equipment has been exposed to wet environment.
  - (d) The equipment can't work well.
  - (e) The equipment has any obvious damage, making the *VEGA* working abnormally.
13. Don't storage the *VEGA* at the temperature lower than  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) or higher than  $+70^{\circ}\text{C}$  ( $158^{\circ}\text{F}$ ) to avoid any damage.

## 1.2 FCC WARNING

This equipment complies with the requirements in Part 15 of FCC.

Any operation must comply with the conditions below:

- (a) The equipment will not cause any severe interference.
- (b) The equipment can avoid any interference from environment.

**Warning!**



*Statement:*

*This product is classified as A class product.*

*In environment this product may cause some interference. In this situation the user may do something to avoid interference.*

# **Chapter 2 Installation of the VEGA V-1020BT**

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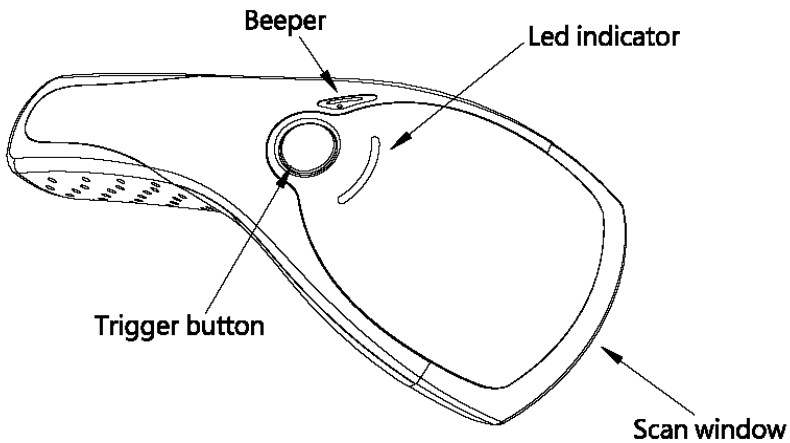
## **2.1 USE OF THE VEGA**

The VEGA is very ergonomic and modern designed and very user friendly. It can be connected to your POS or Host system trough a RS232 cable, KBW cable, USB cable and with Bluetooth wireless technical .

To read a bar code, you simply press the red trigger button and aim the beam to the bar code. But you need to position the beam so that it falls across all bars in the 1D barcodes. You will hear one beep and the green LED indicator will lights on after scan successfully.

The programming of the VEGA is very easy, you can set-up the VEGA by scan all necessary programming codes one time that meet applications, the settings are directly saved permanently, and all settings can be disabled after scan reset factory default.

Thanks to the power full decoding processor, the VEGA can decode all major 1D codes.



## 2.2 V-1020BT UNPACKING

Unpack the *VEGA* as follows:

1. Take the *VEGA* and its accessories out of the box.
2. Remove the packing material.
3. Check the packing list to make sure you have received all of the items ordered.

Standard Shipment Package

- a. *VEGA* Area Imager Handheld Bar code Scanner
  - b. Communication Cable (RS-232 or Keyboard wedge or USB)
  - c. Power adaptor
  - d. Quick Start Guide
  - e. Bluetooth Cradle or charger(optional)
  - f. Transparent Cover Plate
4. Visually inspect the *VEGA* and accessories for any evidence of physical damage.
  5. If anything is missing or appears to be damaged, immediately contact your dealer.

### **ATTENTION**

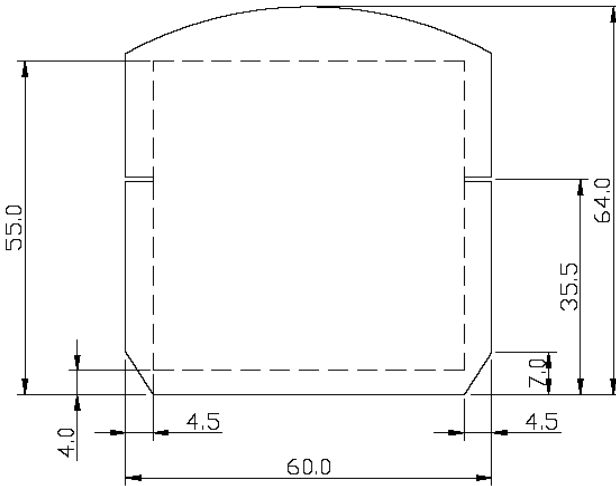
Store the packing material and boxes: it should be used whenever the *VEGA* is transported for servicing.

## 2.3 SETUP COVER DISPLAY

The *VEGA* scanner has the opportunity to change the decorative cover display on the top of the scanner into a display that can show our own commercial message.



### 2.3.1 Message Format


Create your own commercial message with the following outline format, use thicker paper



## 2.3.2 Change Cover Display

Follow the next instruction steps to change the black Cover Display into the transparent Cover Display, so that your customers can read your own commercial message.

<p>Step 1: Press out the front rubber lid toward the arrow.</p>	 A close-up photograph of the front rubber lid of a device. The lid is dark grey and has a central rectangular opening. A black arrow points downwards from the center of the lid, indicating the direction to press. Below the arrow is a small square box containing the number '1'.
<p>Step 2: Pull out the front rubber lid off the main unit.</p>	 A photograph showing the front rubber lid being pulled away from the main unit. The lid is dark grey and is being lifted upwards. A black arrow points upwards from the bottom of the lid, indicating the direction to pull. Above the arrow is a small circle containing the number '2'.

<p>Step 3: Press out top cover rim from the inner lock.</p>	
<p>Step 4: Press out the other side of inner lock and remove the complete cover.</p>	
<p>Step 5 Assemble transparent top cover rim into inner lock.</p>	



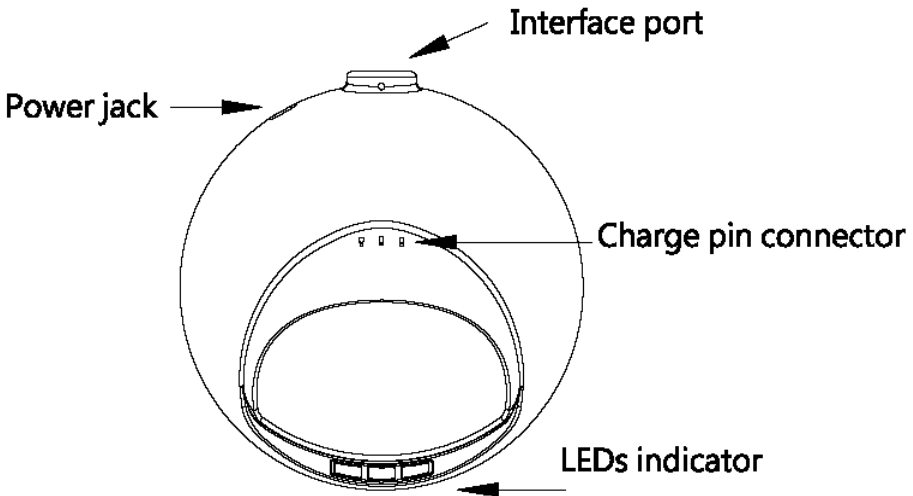
<p>Step 6</p> <p>Assemble another side transparent top cover rim into the inner lock.</p>	
<p>Step 7</p> <p>Insert your commercial message card into the top cover toward the arrow.</p>	
<p>Step 8</p> <p>Assemble the front rubber lid into the main unit toward the arrow.</p>	

## 2.4 V-1020BT CRADLE INSTALLATION

To set up your *VEGA* scanner with Bluetooth technology, please follow the next steps.

1. Connect the supplied communication cable at the bottom side of the cradle.
2. Connect the other side of the communication cable to the right connector of your POS or HOST system.
3. Plug the external power supply into the power jack on the bottom of the cradle.
4. Plug the power supply into the AC outlet.
5. Turn on your POS or HOST system.
6. Set up communication between the *VEGA* scanner and cradle.

To set up communication between *VEGA* scanner and cradle, see chapter 4.3 set up Bluetooth Communication.



## 2.5 CONFIGURING

How to configure the *VEGA*:

The Barcode Programming Feature gives the possibility to change the *VEGA* scanner settings with use programming codes or with the Utility Tool.

### 2.5.1 Changing Scanner Settings with Programming Codes

You can set-up your *VEGA* by scan all necessary programming codes for parameters that meet applications. After these scans the *VEGA* is direct permanently saved. To go back to the factory default settings, just scan only programming code factory default.

In order to change the scanner settings please follow the sequence below:

1. Power-up the scanner.
2. Change scanner settings by scanning any of the programming code that meet applications.

At any moment you can stop your programming, and if needed read programming code factory default setting for set your scanner back to default.

### 2.5.2 Changing Scanner Settings with Utility Tool

Scantech-ID has setup this user manual with the most common used programming codes, it could be possible that you need more advanced settings to use the *VEGA* without any problems into your application.

This tool can be used with the following operation systems: Windows98, Windows2000, Windows XP and Windows Vista.

This Utility Tool can be delivered on request. Please contact Scantech-ID Technical Support Department. You can download this USB driver from the Scantech-ID web site:

**[www.scantech-id.com / support / downloads](http://www.scantech-id.com/support/downloads)**

## Chapter 3 Setup Bluetooth Communication

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Before the *VEGA* scanner can be used for normal operation, Bluetooth communication must be set up between the *VEGA* scanner and cradle, Scanner client mode or to a Bluetooth application device, Scanner Server mode.

### 3.1 PAIRING

Pairing refers to when a *VEGA* scanner has been linked or paired to a specific cradle by scanning that cradle's Bluetooth MAC address code, this Bluetooth MAC address code is unique for each cradle. This address code is located on the bottom side of the cradle. The pairing of a *VEGA* scanner to a cradle is one to one. Only one *VEGA* scanner can be paired to a cradle at any point in time.

### 3.2 SET UP MASTER MODE COMMUNICATION

Please follow the steps to set up the communication between the scanner and cradle.

The scanner must scan "Scanner Master Mode" barcode, to set the scanner in Master mode. Then Scan the Bluetooth "MAC address barcode" located on the bottom of the cradle.

When the Bluetooth MAC address code was successfully scanned, scanner will sound 2 beeps with blue and red LED flash once.

Wait approximately five seconds, for completing the connection process with a long beep sound.

If successful, Blue LED of scanner will slow flash and Blue LED of the cradle will be continued on. If the connections failed the scanner indicates with 3 shot beeps and the cradle with blinking blue LED.



## ATTENTION

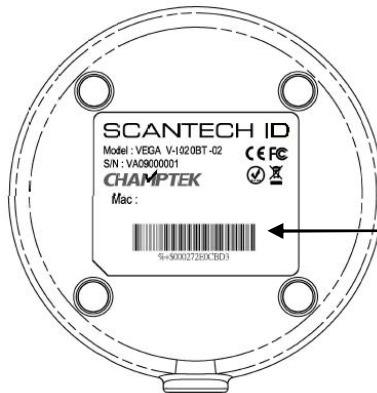
The *VEGA* scanner must be charged for a minimum of 8 hours before the scanner can be placed in full operation for the first time.

Observe proper precautions when charging battery, Battery may leak or explode if improperly used.

Use only battery approved for use in device, Do not use battery of different types.

The cradle red led will indicate in red when the scanner is charged. After the battery is full, The charge green light will be light. The charge green light will be off when the scanner leaving from cradle.

If the battery power of the *VEGA* is too low, the *VEGA* will indicate this with red led and beeper warning.



BT MAC  
Address

It is important to know that the *VEGA* scanner will only communicate with the cradle whose unique Bluetooth MAC address was the last address scanned. If a cradle is paired with the *VEGA* scanner, another *VEGA* scanner can't be paired with that cradle until the original connection is broken.

If you pair a second *VEGA* scanner to an in use cradle, the cradle's connection to the first *VEGA* scanner will be broken and the connection re-established with the second *VEGA* scanner.

### 3.3 SET UP SLAVE MODE COMMUNICATION

Please follow the below steps to set up the communication between the scanner and Bluetooth application device.

The scanner must scan “Scanner Slave Mode” barcode, to set the scanner in Slave mode.

Enter the pin code (default 000000) to setup comport when control the Bluetooth device to search the scanner.

When the scanner is successful connected, scanner will sound 2 short beeps with blue and red LED flash once.

If successful, Blue LED of scanner will slow flash.

If the connections failed the scanner indicates with 3 shot beeps.

### 3.4 SET SCANNER SLAVE/MASTER MODE

Scanner Slave Mode



<Scanner Master Mode>



### 3.4.1 Set Scanner Pin Code Mode

Set Default Security Code  
(PINCODE = 000000)



Set Security Code ON



<Set Security OFF Barcode>



### 3.4.2 Set Pin Code Charactor

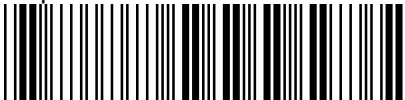
(PINCODE max. 6 digits, 0-9and A-Z ASCII CODE)

1) Begin to Set PINCODE



2) Go to the ASCII Tables in 9.10, scan 6 labels that represents the PINCODE.

3) Complete to Set PINCODE



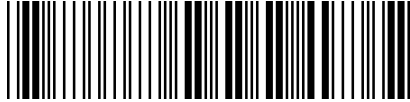
### 3.5 BLUETOOTH CRADLE SETUP

#### 3.5.1 Set Cradle Pin Code Mode

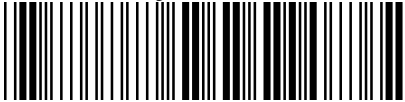
Set Default Security Code Barcode  
(PINCODE = 000000)



Set Security ON Barcode



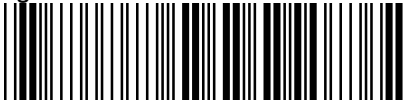
<Set Security OFF Barcode>



#### 3.5.2 Set Cradle Pin Code Barcode

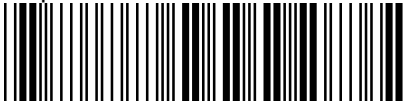
(PINCODE max. 6 digits ,0-9,A-Z ASCII CODE )

1) Begin to Set PINCODE



2) Go to the ASCII Tables in 9.10, scan 6 labels that represents the PINCODE.

3) Complete to Set Cradle BT PINCODE





# Chapter 4 Operating Setting

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## 4.1 RETURN TO DEFAULT

**7.1.1 Scan this programming code to set the scanner /Cradle parameters to factory default:**



Reset all configuration parameters to their factory default setting of the Scanner and Cradle. After this reset you must select all required parameters that meet applications.

## 4.2 SCANNING TRIGGERING



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



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

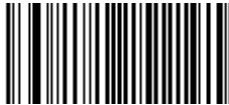


This mode allows lighting and decoding toggle when the trigger line is activated.

First trigger activation = lighting and decoding on,

Second trigger activation = lighting and decoding off.

### Presentation



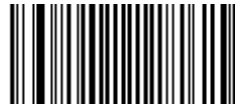
This mode allows power up lighting and decoding are on. After a period of inactivity lasting the time specified by the trigger timeout, the lighting turns off or is dimmed. When a new bar code is presented the lighting and decoding restart and stay on until another period inactivity.

## 4.3 TRIGGER TIME OUT

<2 sec>



4 sec



6 sec



## 4.4 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.

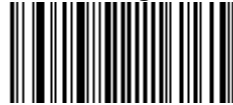
Area mode allows you to set the position of the *VEGA* in any direction regardless of the orientation of the barcode, and perform a good read on 1D and 2D barcodes.

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



## 4.5 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



## 4.6 BUZZER BEEP TONE

### 4.6.1 Beep Tone Setup

<High>



Medium



Low



## 4.6.2 Good Read Beeps

<One Beep>



Two Beeps



None



## 4.6.3 Beep Duration

60 msec



<80 msec>



200 msec



Off



## 4.6.4 Timing

<During Transmission>



Before Transmission



After Transmission



## 4.7 GOOD READ DURATION

### 4.7.1 Good Read LED Duration

<80 msec>



0.5 sec



1 sec



Off



### 4.7.2 Error Beep

<On>



Off



### 4.7.3 Setup Beep

<On>



Off





## 4.8 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 minute. During sleep mode, all the functions and connection will be halted until pressing the trigger button of scanner to wake up and reconnect the communication with the cradle or Bluetooth device.

<Sleep Mode 1 min. ON>



Sleep Mode 10 min. ON



Sleep Mode OFF



## 4.9 BATCH MODE

This Batch mode function is enabled when you have scanned “Memory ON” barcode. Scanning data is stored in the memory of the scanner. This function is disabled when you have scanned “Memory OFF” barcode.

When you have scanned “Out Of Range” barcode, The scanner transmits the scanning data of work range. In case of the scanner is out of working range, the scanner will store the scanning data to memory. You can scan the barcode “Memory read” barcode to transmit the stored data to cradle immediately of working range.

When the communication reconnected again, you can scan the barcode “Memory read” barcode to transmit the stored data to cradle immediately. Or scan the “Memory clear” barcode to erase all stored memory. The capacity of this memory depends on the scanned data size, approximately 20,000 sets for EAN13 of data .

Out Of Range



Memory Mode ON



**<Memory Mode OFF>**



Memory Read



Memory Clear



## 4.10 FIRMWARE VERSION

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

Engine Firmware Version



Scanner Decoder Firmware Version



Cradle Decoder Firmware Version



Scanner Bluetooth MAC Address



Cradle Bluetooth MAC Address



## 4.11 SET CRADLE INTERFACE BARCODE

KB Interface



RS232 Interface



**<USB HID Interface >**



## 4.12 CRADLE RS232 MODE PARAMETERS

### 4.12.1 Baud Rate

1200



2400



4800



9600



<19200>



38400



### 4.12.2 Cradle Data bits

7 data bits

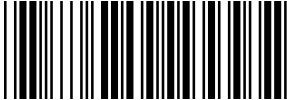


<8 data bits>



### 4.12.3 Cradle Stop bits

<1 bit>



2 bits



### 4.12.4 Cradle Parity

<None>



Even



Odd



Space



Mark



#### 4.12.5 Cradle Hand Shaking

RTS/CTS Enable



<RTS/CTS Disable>



ACK/NAK Enable



<ACK/NAK Disable>



XON/XOFF Enable



< XON/XOFF Disable >



## 4.13 CRADLE KEYBOARD WEDGE MODE PARAMETERS

### 4.13.1 Terminal Type

<IBM PC/AT,PS/2>



IBM PC/XT



IBM PS/2 25, 30



### 4.13.2 Upper/Lower Case

<No change>



Upper Case



Lower Case





### 4.13.3 Capslock Detection

Enable



<Disable>



### 4.13.4 Send Character by ALT Method

Enable



<Disable>



### 4.13.5 Select Numerical Pad

ON



<OFF>



### 4.13.6 Time out Between Characters

<0 ms>



5 ms



10 ms



25 ms



50ms



100ms



## 4.13.7 Language Selection

<US English>



UK English



Italian



Spanish



French



German



Swedish



Switzerland



Hungarian



Belgium



Denmark



Turkey



Japanese



Portuguese



Netherlands



Reserved 1



## 4.14 DECODING SELECTION

### 4.14.1 Symbologies Selection

Australian Post ON



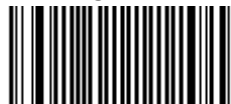
<Australian Post OFF>



AZTEC ON



<AZTEC OFF>



BPO ON



<BPO OFF>



Canada Post ON



<Canada Post OFF>



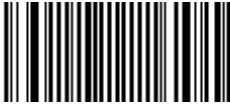
CODABAR ON



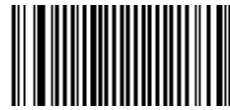
<CODABAR OFF>



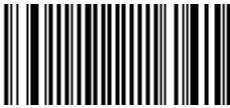
Codablock A ON



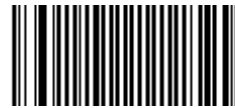
<Codablock A OFF>



Codablock F ON



<Codablock F OFF>



CODE 11 ON



<CODE 11 OFF>



<CODE 39 ON>



CODE 39 OFF



CODE 93 ON



<CODE 93 OFF>



<CODE 128 ON>



CODE 128 OFF



<GS1-128 ON>



GS1-128 OFF



<DATAMATRIX ON>



DATAMATRIX OFF



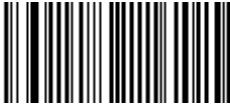
Dutch Post ON



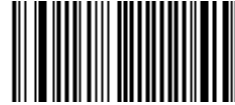
<Dutch Post OFF>



**<EAN-8 ON>**



**EAN-8 OFF**



**<EAN-13 ON>**



**EAN-13 OFF**



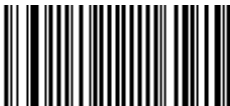
**<EAN 128 ON>**



**EAN 128 OFF**



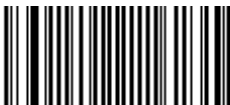
**GS1 CC-A/B ON**



**<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



MSI ON



<PDF417 ON>



Planet ON



PLESSEY ON



Postnet ON



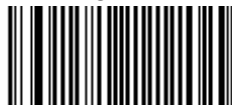
<MicroPDF417 OFF>



<MSI OFF>



PDF417 OFF



<Planet OFF>



<PLESSEY OFF>



**<Postnet OFF>**



QR Code ON



**<QR Code OFF>**



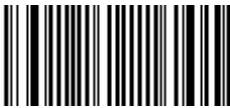
QR Code - model 1 ON



**<QR Code - model 1  
OFF>**



Standard 2 of 5 ON



**<Standard 2 of 5 OFF>**



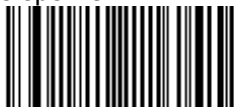
Sweden Post ON



**<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.

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.

Disable All Symbologies.

### **Disable All Symbologies**



- Disabled all Symbologies.
- Use the“OFF”option to disable individual symbologies.
- Does not reset individual parameters settings for each symbology. (When you enable a symbology, you recover the parameter settings stored in memory for that symbology when it was disabled .
- use reset factory defaults to reset all the symbology parameters to their factory default settings).

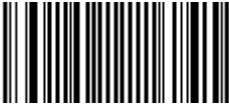
## 4.15 MULTI CODE

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

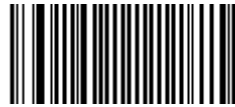
Follow these steps to setup the multicode function:

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

Active



<Not Active>



Active Exclusive



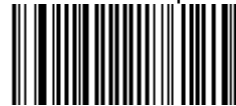
Number of bar codes compose: 2



Number of bar codes compose: 3



Number of bar codes compose: 4



Number of bar codes compose: 5



Number of bar codes compose: 6



## 4.16 UDSI TRANSMISSION

Activates user defined symbology identifier (UDSI) transmission for all symbologies.

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

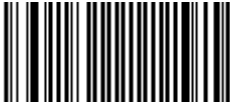


GS1-128	C9
GS1 Composite A/B	G0
GS1 Composite C	G1
GS1 DataBar	C3
GS1 DataBar Limited	C4
GS1 DataBar Expanded	C5
Interleaved 2 of 5	B2
Japan Post	P5
Matrix 2 of 5	B4
MaxiCode	D2
MicroPDF417	C8
MSI Code	B8
PDF417	C7
Planet	P1
Plessey Code	C2
Postnet	P0
QR Code	D1
Standard 2 of 5	B5
Sweden Post	P7
Telepen	C6
TLC 39	H0
UPC-A	A0
UPC-E	E0

## 4.17 POSTAMBLES

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

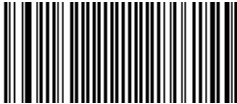
Postamble None



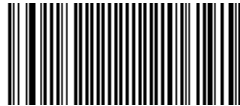
<CR+LF >



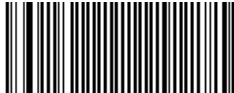
CR



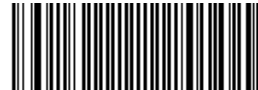
LF



TAB




SP





























# Appendixes

---

## A.DECIMAL VALUE TABLE

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

## 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

Symbology	Default Enable	Note
Codabar	Off	
Code 11	Off	
Code 39	On	
Code 93 / 93i	Off	
Code 128	On	
EAN 8 / EAN 13	On	
EAN 128 / UCC	On	
GS1 DataBar (RSS)	Off	Omni, Expanded, limited
Interleaved 2 of 5	Off	
Industrial	Off	
ISBN	Off	
ISSN	Off	
Matrix	Off	
MSI Code	Off	
Plessey	Off	
Postal codes	Off	
Standard 2 of 5	Off	
Telepen	Off	
UPC A / UPC E	On	

### 2D Symbologies

Symbology	Default Enable
Aztec	Off
Datamatrix	On
PDF417	On
MicroPDF417	Off
Maxicode	Off
QR	Off
UCC/ EAN Composite	Off

## D.TECHNICAL SPECIFICATIONS

### Physical Characteristics

	V-1020BT Approx. 180g
Cradle Weight	Approx. 145g
Charger Weight	Approx. 135g
Material	ABS Plastic
Connector	RJ 45C 10Pins
Scanner Dimension	186.8 mm x 81.6 mm x 63.9 mm
Cradle Dimension	123.9mm x 120mm x 71.4mm

### Operational

Light source	Visible Red light 650nm + 10nm
Scan rate	200scans/sec auto adaptive in linear mode. 56 images/sec auto adaptive in 2D mode.
Optical resolution	752 Horizontal x 480 Vertical pixels, 256 gray levels.
Scan angle	38° Horizontal, 25° Vertical
Interface	RS-232,USB HID, KBW
Data storage on BT disconnect	20,000 scans for EAN13

### Indicator LED Status

#### a) Cradle

Light	Signal	Status
<b>Green</b>	1 blink	good read and transmitted
<b>Red/Green</b>	Red on	Battery Charging
	Green on	Charging Full
	red and green light flash alternately	Battery over charged
<b>Blue</b>	2 blink	BT disconnect
	continuous on	BT connected

**b) Scanner**

Light	Signal	Status
<b>Green</b>	1 blink and 1 beep	good read and transmitted
		good read
<b>Red</b>	3 long blink and 3 long beeps	memory full
	3 long blink and 3 long beeps	Into sleep mode
	2 blink and 2 beeps	low Battery warning
	2 long blink and 2 long beeps	good read but transmit fail
<b>Blue</b>	3 short beeps	BT disconnect
	2 blink per 2 second	on connecting
	flash	BT disconnect before sleep
	1 blink per 2 second	BT connected
<b>Red Blue</b>	1 blink at the same time and 2 beeps	setting ok

**Electrical Characteristics**

Operation Voltage	5 VDC ±5%
Current Operating	450 mA (max) @ 5 VDC
Current Standby	37 mA typical @ 5 VDC
AC transformers	5.2 VDC @ 650 mA / Input AC 100-240V

**Radio Characteristics**

Bluetooth Module	Bluetooth V2.0 Standard
Frequency Band	2.402GHz ~ 2.480GHz
Modulation Method	GFSK for 1Mbps
RF Output Power	Class 2 (under 4 dBm) Class 1 (under 20dBm)
Bluetooth distance range	Class 2 up to 10M(33") line of sight Class 1 up to 80M(264") line of sight



## **Environmental**

Operating Temp. 0°C to 50°C (32°F to 122°F)

Storage Temp. -20°C to 70°C (-4°F to 158°F)

Relative Humidity 0 to 95% non-condensing

Ambient light Works in lighting conditions from 0 to 100,000 lux

## **Regulatory of Compliance**

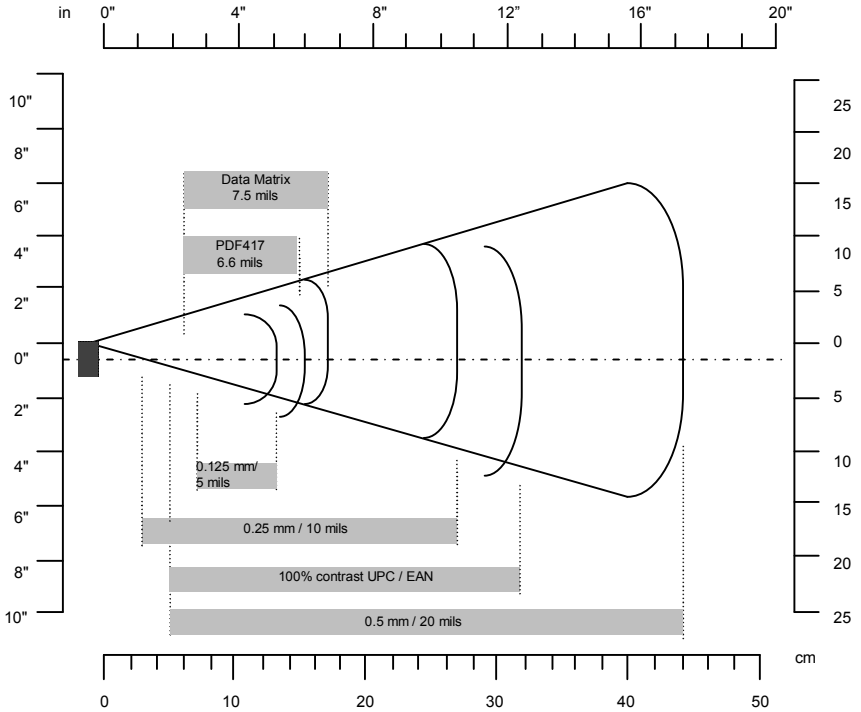
FCC

CE

RoHs

# E.SCAN MAP

## Typical Reading Distances



VEGA Typical Reading Distance: These distances are measured in an office environment (250 lux).

**VEGA Typical Reading Distances (centimeters)**

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.125 mm	7.2 cm	13.1 cm
	0.20 mm	3.8 cm	22.5 cm
	0.25 mm	3.4 cm	27 cm
	0.5 mm	5 cm	44 cm
	1 mm	8 cm	83 cm
UPC / EAN	0.33 mm	5 cm	32 cm
Data matrix	0.191 mm	6.3 cm	17.2 cm
	0.254 mm	4.8 cm	22 cm
	0.381 mm	*	29 cm
PDF417	0.16 mm	6.2 cm	15.4 cm
	0.254 mm	4.5 cm	23 cm
	0.381 mm	4 cm	37 cm

\*Minimum distance depends on symbology length and scan angle.

**VEGA Typical Reading Distances (inches)**

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	5 mils	2.8 Inch	5.1 Inch
	8 mils	1.5 Inch	8.8 Inch
	10 mils	1.3 Inch	10.5 Inch
	20 mils	2 Inch	17.2 Inch
	40 mils	3.1 Inch	2.4 Inch
UPC / EAN	13 mils	2 Inch	12.5 Inch
Data matrix	7.5 mils	2.5 Inch	6.7 Inch
	10 mils	1.9 Inch	8.6 Inch
	15 mils	*	11.3 Inch
PDF417	6.6 mils	2.4 Inch	6 Inch
	10 mils	1.8 Inch	9 Inch
	15 mils	1.6 Inch	14.4 Inch

\*Minimum distance depends on symbology length and scan angle.

## F.OVERVIEW MODEL NUMBERS

### VEGA with Area Imager

#### *Version with RS232 interface:*

A274002 VEGA V-1020BT C2 -02

A276002 VEGA V-1021BT C1 -02

#### *Version with KBW interface:*

A274004 VEGA V-1020BT C2 -04

A276004 VEGA V-1021BT C1 -04

#### *Version with USB (HID KBW) interface:*

A274003 VEGA V-1020BT C2 -03

A276003 VEGA V-1021BT C1 -03

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