IG300BT

C1/C2 Area image Barcode Scanner

User's Manual

Conents

1. Introduction

Thank you for purchasing this brand-new designed 2D imager hand held barcode scanner.

This is a cutting-edge gun-type Area Imaging barcode scanner which is designed specifically for retailer, entertainment coupons, medical environment, shipping industry and etc. That adds on more user friendly functions and has replaceable cable that makes it more easily to be operated by the customers.

This high performance gun-type scanner provides the customer with the most cost effective solution in the market. It is perfectly suitable and definitely the best choice for you.

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 device, the users must cut off all AC power. Do not use liquid or spray type of detersive to clean the device. Please use dampish cotton cloth to clean the device.
4) The outlet must set nearby the device for connecting power easily.
5) Keep the device 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.
13) The damage of wire or pin of power supply.
14) Some Liquid infiltrate into the equipment.
15) The equipment has been exposed to wet environment.
16) The equipment can't work well.
17) The equipment has any obvious damage, making the device working abnormally.
18) Don't storage the device at the temperature lower than -20°C (-4°F) or higher than +70°C (158°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:

1) The equipment will not cause any severe interference.
2) The equipment can avoid any interference from environment.

Warning!

Statement:
This product is classified as B class product.
In environment this product may cause some interference. In this situation the user may do something to avoid interference.

2. General Description

2.1 Product Description

IG300BT is a high performance wireless 2D imager barcode scanner supporting liner, area imager barcode scanning.

This device is very easy to configure by this manual, you can set up by scanning 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.

2.2 Illustration

IG-300BT Series
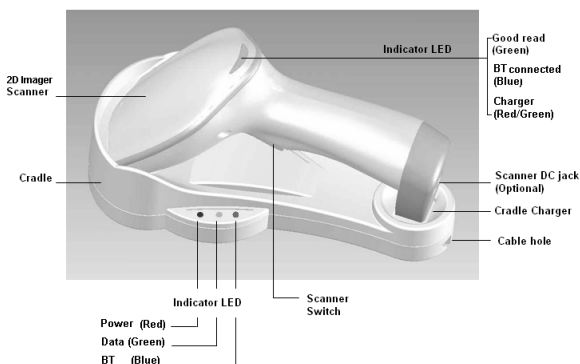
3. Installation

3.1 Unpacking

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

- Wireless 2D Imager Scanner
- Bluetooth Cradle or Charger (optional)
- Power Adaptor (if applied)
- Communication Cable
- Skip resistant pad
- Iron panel of cradle and screw
- Quick Start Guide

4) Visually inspect the device 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 device is transported for servicing.

3.2 Mounting

Once you have unpacked all components, you can start installing the device as below steps:

IG300BT Scanner
1) The Scanner must be charged for a minimum of 8 hours before the scanner can be placed in full operation for the first time.
2) The cradle will indicate in red light when the scanner is being charged.
3) Once the battery is full, green LED of scanner will be ON. And green light will be OFF when the scanner leaving from cradle. The battery will over charged when battery full charged again, red and green LED will flashing.
4) If the battery power capacity is too low, the

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scanner will indicate with red LED and beeper warning.

IG300BT Cradle
1) Connect the supplied communication cable at the bottom side of the scanner and you will hear a "click" when the connection is made.
2) Turn off the host system.
3) Connect the other side of the communication cable to the right connector of your Host system.
4) Plug the external power supply into the power jack on the bottom of the cradle.
5) Plug the power supply into the AC outlet.
6) Turn on your Host system.
7) To set up Bluetooth Communication between the scanner and cradle. (see chapter 4)
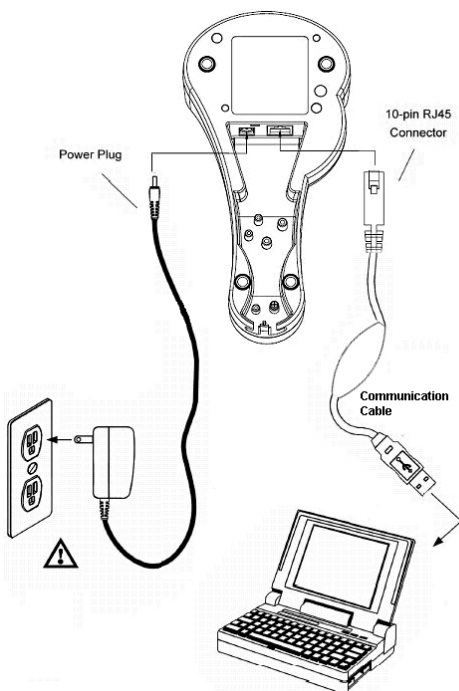
Cable Installation

Connect cable and adaptor to Cradle. The other end of cable will be connected with Host device. Lock the iron panel of Cradle by screwdriver.

Skip resistant pad position

4. Set up Bluetooth Communication

Before the operation, Bluetooth Communication must be set up between the scanner and cradle.

4.1 Pairing

Each scanner has to be linked or paired to a cradle by scanning the unique Bluetooth MAC address code located on the bottom of cradle. The pairing between scanner and cradle is one to one that is one scanner can be paired to a cradle only.

4.2 Set up Master Mode Communication

Please follow the steps to set up the communication between the scanner and cradle.
1) The scanner must scan "Scanner Master Mode" barcode, to set the scanner in Master mode.
2) Scan the Bluetooth MAC address code located on the bottom of the cradle.

MAC Address Label
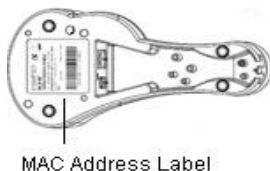
3) When the Bluetooth MAC address code was successfully scanned, scanner will sound 2 short beeps with blue and red LED flash once.
4) Wait approximately five seconds, for completing the connection process with a long beep sound.
5) If successful, Blue LED of scanner will slow flash and the cradle will be continued on.
6) If the connections failed the scanner indicates with 3 shot beeps and the cradle with blinking blue LED.

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ATTENTION:

It is important to know that the scanner will only communicate with the cradle with the unique Bluetooth MAC address. Other scanner can not pair with that cradle until the original connection is broken. If the cradle pairs with another scanner, the cradle will disconnect with the first scanner and then re-connect with another scanner.

4.3 Set up Slave Mode Communication

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

1) The scanner must scan "Scanner Slave Mode" barcode, to set the scanner in Slave mode.
2) Enter the pin code (default 000000) to setup comport when control the Bluetooth device to search the scanner.
3) When the scanner is successful connected, scanner will sound 1 long beep.
4) If successful, Blue LED of scanner will slow flash.
5) If the connections failed the scanner indicates with 3 shot beeps.

4.4 Scanner Slave/Master Mode

Scanner Slave Mode

<Scanner Master Mode>

4.4.1 Set Scanner Pin Code Mode

Set Default Security Code
<PINCODE = 000000>

||||||||||||||||||||||||||||||||||||

Set Security Code ON

||||||||||||||||||||||||||||||||||||

<Set Security code OFF>

||||||||||||||||||||||||||||||||||||

4.4.2 Set Pin Code Character

(PINCODE max. 6 digits/0-9and A-Z ASCII CODE)
Set Default Security Code Barcode
<PINCODE = 000000>

1) Begin to Set PINCODE

||||||||||||||||||||||||||||||||||||

2) Go to the ASCII Tables in Appendixes; scan 6
labels that represent the PINCODE.

3) Complete to Set PINCODE

||||||||||||||||||||||||||||||||||||

4.5 Bluetooth Cradle Setup

4.5.1 Set Cradle Security Mode

Set Default Security Code Barcode
<PINCODE = 000000>

||||||||||||||||||||||||||||||||||||||||

Set Security ON

||||||||||||||||||||||||||||||||||||||||

<Set Security OFF>

||||||||||||||||||||||||||||||||||||||||

4.5.2 Set Cradle Pin Code

(PINCODE max. 6 digits ,0-9,A-Z ASCII CODE)
Set Default Security Code Barcode
<PINCODE = 000000>

1) Begin to Set PINCODE

||||||||||||||||||||||||||||||||||||||||

   2) Go to the ASCII Tables in Appendixes; scan
     6 labels that represent the PINCODE.

3) Complete to Set Cradle BT PINCODE

||||||||||||||||||||||||||||||||||||||||

5. Configuring

5.1 Preface

How to configure this device: The Barcode Programming Feature gives the possibility to change the scanner settings with use programming codes.

5.2 Changing Scanner Settings with Programming Codes

You can setup your device by scanning all necessary programming codes for parameters that meet applications. After these scans, the device will save directly and permanently. To go back to the factory default settings, just scans the 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.

An Example:
For changing the Baud rate to 38400 only scan the programming code that represents this.

After reading a valid programming code the scanner will give Di-Du beeps and red-blue LEDs indicator will flash. And the cradle will give green LED indicator flash.

At any moment, you can stop your programming and read programming code factory default to go back to default.

5.3 Changing Scanner Settings with Utility Tool

Manufacturer has setup this scanner with the most common used programming codes, It could be possible that you need more advanced settings to use the scanner without any problems into your application.

In this case you can setup your scanner by using the advanced Utility Tool. This tool can be used with the following operation systems: Windows98, Windows2000, Windows XP en Windows Vista.

This Utility Tool can be delivered on request. Please contact your dealer

5.4 Factory Default Settings

The factory default settings are shown with **<>** and bold in the followings sections

The readable and default enable symbologies list, please see Appendixes C.

6. Operating Settings

6.1 Factory Default

Set Scanner /Cradle factory default

||||||||||||||||||||||||||||||||||

The scanner and cradle factory default settings are shown with bold **< >** in the following pages.
Reset all configuration parameters to their factory default setting. After this reset you must select all required parameters that meet applications.

6.2 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 an*d 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.
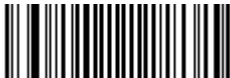
6.3 Trigger Time Out

<2 sec>

4 sec

6 sec

6.4 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

6.5 Buzzer Beep Tone

6.5.1 Beep Tone Setup

< High >

Medium

Low

6.5.2 Good Read Beeps

<One Beep >

||||||||||||||||||||||||||

Two Beeps

||||||||||||||||||||||||||

None

||||||||||||||||||||||||||

6.5.3 Beep Duration

60 msec

||||||||||||||||||||||||||

<80 msec>

||||||||||||||||||||||||||

200 msec

||||||||||||||||||||||||||

Off

||||||||||||||||||||||||||

6.5.4 Timing

<During Transmission>

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

Before Transmission

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

After Transmission

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

6.5.5 Good Read Duration

<80 msec>

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

0.5 sec

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

1 sec

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

Off

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

6.5.6 Error Beep

<On>

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

Off

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

6.5.7 Setup Beep

<On>

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

Off

‖‖|‖‖|‖‖|‖‖|‖‖|‖‖|

7. Imager Settings

7.1 Imager Mode

You can set the best reading performance depends on the environment, your used application and type of barcodes.

- Linear mode for decode 1D Barcodes.
- Area mode for decode 1D and 2D 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 across all bars in the 1D barcode.

<Area imager>

Linear imager

Area imager
Bright Environment

Area imager
Reflective Surface

7.2 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

7.3 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

7.4 Firmware Version

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

7.4.1   Engine Firmware Version

||| ||||| ||| || ||||

7.4.2   Scanner Decoder Firmware Version

||||| ||||| ||| ||| ||| ||| ||| ||| ||||

7.4.3   Cradle Decoder Firmware Version

||||| ||||| ||| ||| ||| ||| ||| ||| ||||

7.4.4   Scanner Bluetooth MAC Address

||||| ||||| ||| ||| ||| ||| ||| ||| ||||

7.4.5   Cradle Bluetooth MAC Address

||||| ||||| ||| ||| ||| ||| ||| ||| ||||

7.5 Set Cradle Interface Barcode

Set Cradle KB Interface Barcode

Set Cradle RS232 Interface Barcode

<Set Cradle USB HID Interface Barcode>

7.6 Cradle RS232 Communication Parameter

7.6.1 Cradle Baud Rate

1200

2400

4800

9600

<19200>

38400

||||||| | || ||| ||||| |||| ||| ||||

7.6.2 Cradle Data Bits

7 data bits

||||||| | || ||| ||||| ||||| || ||||

<8 data bits>

||||||| | || ||| ||||| ||||| || ||||

7.6.3 Cradle Stop bits

<1 bit>

||||||| | || ||| ||||| ||||| || ||||

2 bits

||||||| | || ||| ||||| |||||| ||| ||||

7.6.4 Cradle Parity
<None>

||||||| | ||| ||| |||||| ||||| || ||||

Even

||||||| | || ||| ||||| ||||| ||| ||| ||||

Odd

||||||| | || ||| ||||| ||||| ||| |||| ||||

28

Mark

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

Space

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7.6.5   Cradle Hand Shaking

RTS/CTS Enable

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

<RTS/CTS Disable>

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ACK/NAK Enable

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

<ACK/NAK Disable>

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XON/XOFF Enable

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< XON/XOFF Disable >

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7.6.6 Cradle Keyboard Wedge Mode Parameters

1) Terminal type

<IBM PC/AT,PS/2>

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IBM PC/XT

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

IBM PS/2 25, 30

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

2) Capslock Detection

Enable

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

<Disable>

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

3) Upper/Lower Case

<No change>

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Upper Case

‖‖‖‖‖ ‖ ‖‖‖ ‖‖‖‖ ‖‖‖‖ ‖‖‖ ‖‖‖

Lower Case

‖‖‖‖‖ ‖ ‖‖ ‖‖‖‖ ‖‖‖ ‖‖‖ ‖‖ ‖‖‖

3) Send Character by ALT Method

Enable

‖‖‖‖‖ ‖ ‖‖‖ ‖‖‖‖ ‖‖‖‖ ‖‖ ‖‖ ‖‖‖

<Disable>

‖‖‖‖‖ ‖ ‖‖‖ ‖‖‖‖ ‖‖‖‖ ‖‖‖ ‖‖ ‖‖‖

4) Select Numerical Pad

ON

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<OFF>

‖‖‖‖‖ ‖ ‖‖‖ ‖‖‖‖ ‖‖‖‖‖ ‖‖ ‖‖ ‖‖‖

5) Time out Between Characters

<0 ms>

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|||||| ||| ||| |||| ||| ||| |||
```

5 ms

```
|||||| ||| ||| |||| ||| ||| |||
```

10 ms

```
|||||| ||| ||| |||| ||| ||| |||
```

25 ms

```
|||||| ||| ||| |||| |||| ||| |||
```

50ms

```
|||||| ||| ||| |||| ||| ||| |||
```

100ms

```
|||||| ||| ||| |||| ||| ||| |||
```

6) Language Selection

<US English>

UK English

Italian

Spanish

French

German

Swedish

Switzerland

Hungarian

Japanese

Belgium

Portuguese

Denmark

Netherlands

Turkey

Reserved 1

7.7 Decoding Selection

7.7.1 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 Expanded ON

<GS1 DataBar Expanded>

Infomail ON

<Infomail OFF>

Interleaved 2 of 5 ON

<Interleaved 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

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

<Planet OFF>

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PLESSEY ON

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

<PLESSEY OFF>

Postnet ON

<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

7.7.2   Disable All Symbologies.

If you want to disable all Symbologies, please scan below programming code. Or you can scan the "Off" option to disable individual symbologies.

Disable All Symbologies

Note: Do not reset individual parameters settings for each symbology. When you enable a symbology, you will recover the parameter settings stored in memory.

Anytime, you may reset to factory defaults by scanning the programming code of "Set factory default" (please see 7.1.1)

7.7.3 Multi Code

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

\<Not Active\>

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

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

<Not Transmitted >

UDSI Transmitted

Data Format: [UDSI symbology id] <data>

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

7.7.5   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
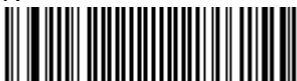
LF
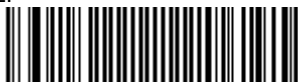
TAB
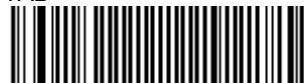
SP
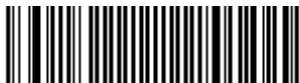
Appendixes

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

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

2D Symbologies

Symbologies	Readable	Default Enable
Data Matrix	◯	
PDF417	◯	◯
MicroPDF417	◯	
MaxiCode	◯	
QR code	◯	
Aztec	◯	
EAN.UCC composite	◯	

D. Technical Specifications
D-1 Physical Characteristics

Weight	
IG-300BT	
Scanner	Approx. 210g
Cradle	Approx. 105g
Accessory	
KBW cable	Approx. 75g
RS232 Cable	Approx. 123g
USB Cable	Approx. 67g
AC adaptor	Approx. 125g
Material	ABS Plastic
Connector	RJ 45C 10Pins
Cable Length	5Ft. (150mm)
Dimension	
Scanner	193x90x72mm
Cradle	206x101x49mm

D-2 Performance
a) Scanner Characteristics

Light source	Visible Red light 650nm ± 10nm
Scan rate	200scans/sec auto adaptive in linear mode 56 images/sec auto adaptive in area mode
Optical resolution	752 Horizontal x 480 Vertical pixels, 256 gray levels
Scan angle	Horizontal 70°±10% (Forward: 20°/ Backward: 50°)

	Vertical 80°±10% (Left 40°/ Right 40°)
Interface IG-300BT	KBW, RS-232, USB (HID KBW)

b) Bluetooth Characteristics
(for IG-300BT series)

Bluetooth Module	Bluetooth V2.0 Standard
Frequency Band	2.402GHz ~ 2.480GHz
Modulation Method	GFSK for 1Mbps
RF Output Power	Under 4dBm (Class 2)
Bluetooth distance range	Class2; Up to 10M line of sight Class 1 ; Up to 80M line of sight
Data storage on BT disconnect	20,000 scans for EAN13

D-3 Indicator LED Status
a) Cradle

Light	Signal	Status
Green	1 blink	good read and transmitted
Red	continuous on	power on
	off	power off
Blue	2 blink	BT disconnect
	continuous on	BT connected

b) Scanner

Light	Signal	Status
Green	1 blink and 1 beep	good read and transmitted
		good read and save on memory (BT disconnect)
	continue on	battery charged full
Red	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
	continue on	in charging
Blue	3 short beeps	BT disconnect
	2 blink per 2 second	on connecting
	flash	BT disconnect before sleep
	1 blink per 2 second	BT connected
Red Blue	1 blink at the same time and 2 beeps	setting ok
Red Green	red and green light flash alternately	Battery over charged

D-4 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

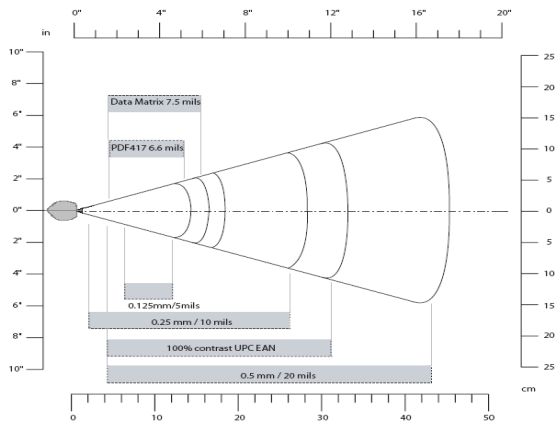## D-5 Environmental

Operating Temp	0°C to 50°C
Storage Temp.	-20°C to 70°C
Relative Humidity	0 to 95% non-condensing
Ambient light	100,000 Lux (direct sunlight)

D-6 Regulatory of Compliance

FCC, CE, RoHs

E. Scan Map

Symbology	Density	Minimum Distance (+/- 10%)	Maximum Distance (+/- 10%)
Code 39	0.125 mm	5.2 cm	12.1 cm
	0.20mm	2.0 cm	21.5 cm
	0.25mm	2.4 cm	26 cm
	0.5mm	4 cm	44 cm
	1mm	7 cm	82 cm
UPC / EAN	0.33 mm	4 cm	31 cm
Data matrix	0.191 mm	5.3 cm	16.2 cm
	0.254 mm	3.8 cm	21 cm
	0.381 mm	*	28 cm
PDF417	0.16 mm	5.2 cm	14.4 cm
	0.254 mm	3.5 cm	22 cm
	0.381 mm	3 cm	36 cm

F. Test Symbologies

Scan one or more of these barcodes to test barcode symbologies you enabled.

Codabar
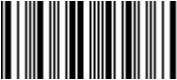
Code 39

Code 93

Code 128

DataMatrix

EAN 8

1234 5670

EAN13

1 234567 890128

EAN 128
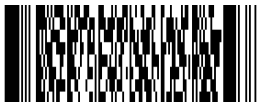
Interleaved 2 of 5

MSI code

PDF417

GS1 DataBar
Omnidirectional

GS1 DataBar
Omni Stacked

GS1 DataBar Expanded

GS1DataBar Expanded
Stacked

GS1 DataBar Limited

UPC A

0 12345 67890 5

UPC E

0 123456 5