

Champtek

IG300BT

*C1/C2 Area image Barcode
Scanner*

User's Manual

Table of contents

1. Introduction	1
1.1 <i>Safety & caution</i>	1
1.2 <i>FCC warning</i>	2
2. General Description	3
2.1 <i>Product Description</i>	3
2.2 <i>Illustration</i>	3
3. Installation	4
3.1 <i>Unpacking</i>	4
3.2 <i>Mounting</i>	4
3.3 <i>Set up Bluetooth Communication</i>	6
4. Configuring	9
4.1 <i>Preface</i>	9
4.2 <i>Changing Scanner Settings with Programming Codes</i>	9
4.3 <i>Changing Scanner Settings with Utility Tool</i>	10
4.4 <i>Factory Default Settings</i>	10
5. Operating Settings	11
5.1 <i>Scanning Triggering</i>	11
5.2 <i>Time Out</i>	13
5.3 <i>Good Read Mode</i>	14
5.4 <i>Buzzer Beep Tone</i>	14
6. Imager Settings	15
6.1 <i>Imager Mode</i>	15
6.2 <i>Firmware Version</i>	16
6.2.1 Engine Firmware Version.....	16
6.2.2Scanner Decoder Firmware Version.....	16
6.2.3Cradle Decoder Firmware Version	16
6.2.4Scanner Bluetooth MAC Address.....	16
6.2.5Cradle Bluetooth MAC Address	16
7. Programming Codes	17
7.1 <i>Factory Default</i>	17
7.2 <i>Bluetooth Setup for IG300BT series</i>	18
7.3 <i>Bluetooth Cradle Setup</i>	20

7.4	Decoding Selection	27
7.5	Australian Post Settings	34
7.6	Aztec Settings	34
7.7	BPO Settings	35
7.8	Canada Post Settings	35
7.9	Codabar Settings	35
7.10	Codablock Settings	37
7.11	Code 11 Settings	38
7.12	Code 39 Settings	38
7.13	Code 93 / Code 93i Settings	40
7.14	Code 128 / GSI-128 Settings	41
7.15	DataMatrix Settings	43
7.16	Dutch Post Settings	43
7.17	EAN /UPC Parameters Settings	44
7.18	GS1 Composite Settings	47
7.19	GS1 DataBar Settings	49
7.20	Infomail Settings	49
7.21	Interleaved 2 of 5 Parameters	50
7.22	Japan Post Settings	51
7.23	Matrix 2 of 5 Settings	51
7.24	MaxiCode Settings	52
7.25	MicroPDF417 Settings	53
7.26	MSI code parameters Settings	53
7.27	PDF417 Settings	54
7.28	Planet settings	56
7.29	Plessey Code Parameters	57
7.30	Postnet Settings	57
7.31	QR Code Settings	58
7.32	Standard 2 of 5 Settings	58
7.33	Sweden Post Settings	59
7.34	Telepen Settings	59
7.35	TLC 39 Settings	60
7.36	Miscellaneous Parameters	61
7.37	Preambles and Postambles	61
Appendixes		63
A.	Decimal Value Table	63
B.	ASCII Table	64
C.	Readable Symbologies	65
D.	Technical Specifications	66
E.	Scan Map	70
F.	Test Symbologies	71

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 government administration, custom control, 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 detergent 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

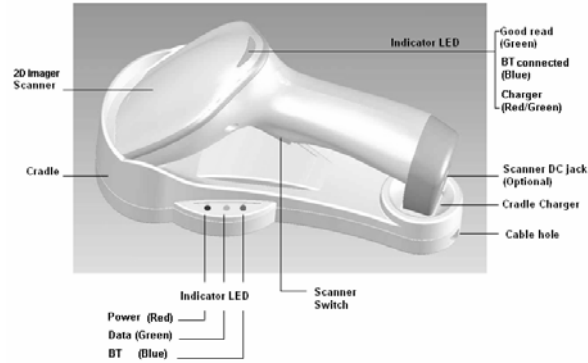
2.1 Product Description

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
 - User Manual
- 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:

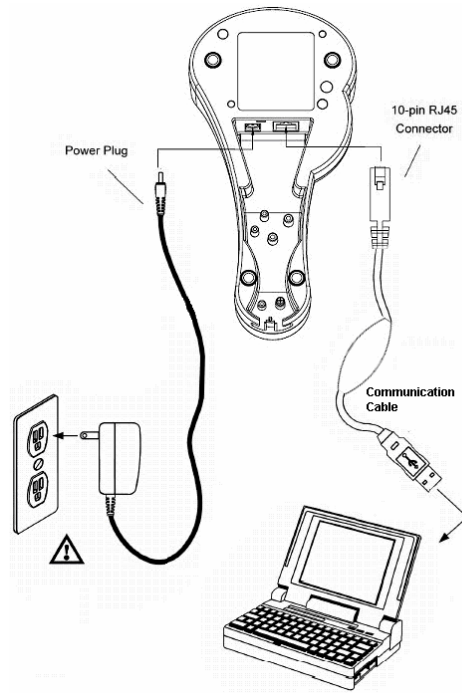
IG300BT Scanner

- 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

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 3.3)



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



3.3 Set up Bluetooth Communication

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

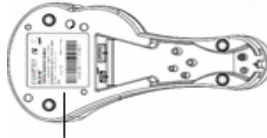
3.3.1. Pairing

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.

3.3.2. 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.

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.

3.3.3. 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 2 short beeps with blue and red LED flash once.

- 4) If successful, Blue LED of scanner will slow flash.
- 5) If the connections failed the scanner indicates with 3 shot beeps.

3.3.4. 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 (setting by scanning the according programming code, please see chapter 7.). 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.

3.3.5. 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 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 1,000 sets of data** .

4. Configuring

4.1 Preface

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

4.2 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 a High beep and the green led indicator will lights on.

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

4.3 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

4.4 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](#).

5. Operating Settings

5.1 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).

Note: The continue scanning mode doesn't support the IG-300BT series.

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.

Note: The pulse mode does not support the IG-300BT series.

Continuous + Flashing



When the scan engine is turned on, a reading session begins (no need to activate the beam). After a period of inactivity lasting the time specified by the timeout, the scan engine starts flashing, checking for a barcode to be read.

When a barcode is detected, the lighting automatically turns on and stays on until another period of inactivity (timeout).
After the timeout the scan engine starts flashing again.

Level + Flashing



This mode allows you the switch between level and flashing mode.
When the scanner is turned on it is in flashing mode (see flashing mode for explanation).
You can automatically switch to level mode by activating the beam line.
After a period of inactivity lasting the time specified by the timeout the scan engine switches back to flashing mode.

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



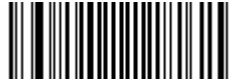
This mode allows power up lighting and decoding are on. After a period of inactivity lasting the time specified by the trigger timeout, the lighting turns off or is dimmed. When a new bar code is presented the lighting and decoding restart and stay on until another period inactivity.

5.2 Time Out

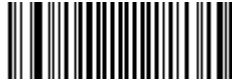
<2 sec>



4 sec



6 sec



5.3 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



5.4 Buzzer Beep Tone

5.4.1 Beep Tone Setup

<High >



Medium



Low



5.4.2 Good Read Beeps

<One Beep >



Two Beeps



None



5.4.3 Beep Duration

60 msec



<80 msec>



200 msec



Off



6. Imager Settings

6.1 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



1D and 2D Codes, Bright Environment



1D and 2D Codes With
Reflective Surface



6.2 Firmware Version

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

6.2.1 Engine Firmware Version



6.2.2Scanner Decoder Firmware Version

6.2.3Cradle Decoder Firmware Version

6.2.4Scanner Bluetooth MAC Address

6.2.5Cradle Bluetooth MAC Address

7. Programming Codes

7.1 Factory Default

7.1.1 Scanner/Cradle parameters set to 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.

7.2 Bluetooth Setup for IG300BT series

7.4.1 Scanner Slave/Master Mode

Scanner Slave Mode



<Scanner Master Mode>



7.4.2 Sleep Mode

<Sleep Mode 1 min. ON>



Sleep Mode 10 min. ON



Sleep Mode OFF



7.4.3 Batch Mode

Memory Mode ON



<Memory Mode OFF>



Memory Read



Memory Clear



7.4.4

7.4.5 Set Scanner Pin Code Mode

Set Default Security Code
(PINCODE = 00000)



Set Security Code ON



<Set Security code OFF>



7.4.6 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.

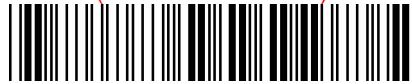
- 3) Complete to Set PINCODE



7.3 Bluetooth Cradle Setup

7.5.1 Set Cradle Security Mode

Set Default Security Code Barcode
(PINCODE = 000000)



Set Security ON



<Set Security OFF>



7.5.2 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 Scanner BT PINCODE



7.5.3 Set Cradle Interface Barcode

Set Cradle KB Interface Barcode



Set Cradle RS232 Interface Barcode



Set Cradle USB HID Interface Barcode



7.5.4 Cradle Baud Rate

1200



2400



4800



9600



<19200>



38400



7.5.5 Cradle Data Bits

7 data bits



<8 data bits>



7.5.6 Cradle Stop bits

<1 bit>



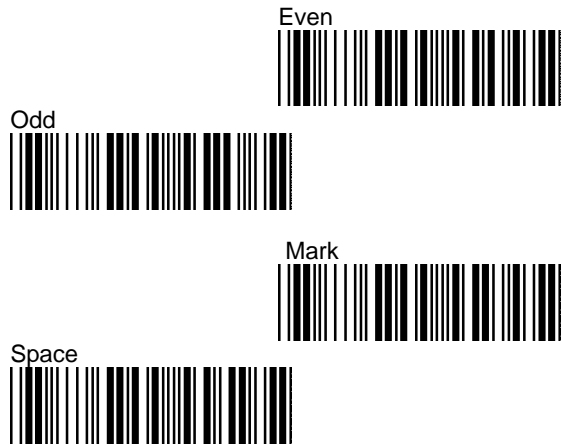
2 bits



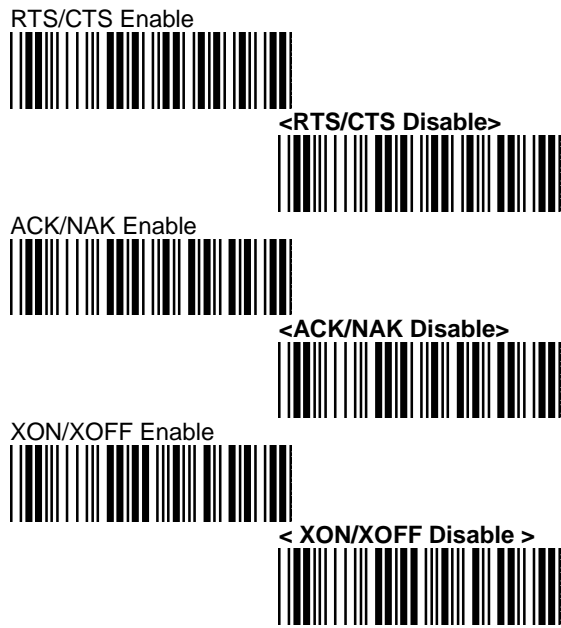
7.5.7 Cradle Parity

<None>





7.5.8 Cradle Hand Shaking



7.5.9 Cradle Keyboard Wedge Mode Parameters

1) Terminal type

<IBM PC/AT,PS/2>



IBM PC/XT



IBM PS/2 25, 30



2) Upper/Lower Case

<No change>



Upper Case



Lower Case



3) Send Character by ALT Method

Enable



<Disable>



4) Select Numerical Pad

ON



<OFF>



5) Time out Between Characters

<0 ms>



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



7.4 Decoding Selection

7.6.1 Symbolologies Selection

Australian Post ON



<Australian Post OFF>



AZTEC ON



<AZTEC OFF>



BPO ON



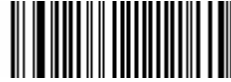
<BPO OFF>



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>



PLESSEY ON



<PLESSEY OFF>



Postnet ON



<Postnet OFF>



QR Code ON



<QR Code 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



7.6.2 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)

7.5 Australian Post Settings

7.7.1 Symbology Identifier

7.6 Aztec Settings

7.8.1 Structure Append Mode

Active



< Not Active>



7.8.2 Aztec Runes

Active



<Not Active>



7.8.3 GS1-128 Emulation

Active



<Not Active>



7.7 BPO Settings

7.9.1 Check Digit Transmission

<Active>



Not Active

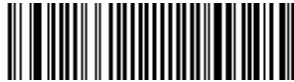


7.8 Canada Post Settings

7.9 Codabar Settings

7.11.1 Symbology Identifier

<UDSI-Default"B7">



<Code Mark- Default"D">



7.11.2 Start/Stop

<Not Transmitted>



Transmitted-a,b,c,d



Transmitted-A,B,C,D



Transmitted-a,b,c,d/t,n*,e



Transmitted-DC1,DC2,DC3,DC4



7.11.3 CLSI Library System

Active (insert spaces)



<Not Active>



7.11.4 Check Digit Verification

Used



<Not Used>



7.11.5 Check Digit Transmission

Transmitted



<Not Transmitted>



7.11.6 Concatenation

<Not Active >



Transmit All Codes
(Single, Concatenated)



Transmit Concatenated Codes Only



<No Start/Stop Restrictions>



Stop 1 = Start 2



ABC (American Blood
Commission)



7.10 Codablock Settings

**<Codablock F
UDSI-Default "K1">**



<Codablock F
Code Mark-Default"*">



7.11 Code 11 Settings

7.13.1 Symbology Identifier

<UDSI-Default"C1">



<Code Mark-Default"*">



Check Digits

<1 Digit>



2 Digits



<Checked and Transmitted>



Checked but not
Transmitted



7.12 Code 39 Settings

7.14.1 Symbology Identifier

<UDSI-Default"B1">



<Code Mark-Default"*">



7.14.2 Format

<Standard 43 Characters>



Full ASCII (Extended)



7.14.3 Start/Stop

<Not Transmitted>



Transmitted



7.14.4 Accepted Characters

<Only(Standard Code 39)>



\$ Only(Trioptic Code 39)



\$ and *
(Standard and Trioptic Code 39)



7.14.5 Check Digit Verification

<Not Used >



Modulo 43



French CIP



Italian CPI



<Check Digit not Transmitted >



Check Digit Transmitted



7.14.6 Reading Range

<Extended >



Normal



7.14.7 Reading Tolerance

<High >



Medium



Low



7.13 Code 93 / Code 93i Settings

7.15.1 Symbology Identifier

<UDSI-Default"B6">



<Code Mark-Default"D">



7.14 Code 128 / GSI-128 Settings

7.16.1 Symbology Identifier

<UDSI-Code 128-Default"B3">



<UDSI-GS1-128-Default"C9">



<Code Mark-Code 128-Default"D">



<Code Mark-GS1-128-Default"D">



7.16.2 GS1-128 Identifier

<Include]C1 Identifier>



Remove]C1 Identifier



7.16.3 CIP 128 French Pharmaceutical Codes

Active



<Not Active >



<FNC1 Separator Character
(GS1-128 norms)-<GS>(1Dh)>



7.16.4 Reading Tolerance

<High >



Medium



Low



7.16.5 ISBT 128

Active



<Not active >



Transmit Single

<Codes Only >



Transmit Concatenated
Codes Only



Transmit Single Codes/
Concatenated Codes



<Concatenate Authorized
ISBT 128 Code Pairs Only>



Concatenate All
ISBT 128 Code Pairs



7.16.6 GTIN Processing for GS1-128

Active



<Not Active >



7.16.7 Unconventional GS1-128

<Active>



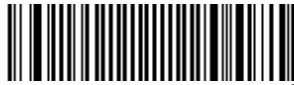
Not Active



7.15 DataMatrix Settings

7.17.1 Symbology Identifier

<UDSI-Default"D0">



<Code Mark-Default"*">



7.16 Dutch Post Settings

7.18.1 Symbology Identifier

<UDSI-Default"P4">



<Code Mark-Default"*">



7.17 EAN /UPC Parameters Settings

7.19.1 Reading Type

<UPC-A Transmitted As EAN-13>



UPC-A Transmitted As UPC-A



<UPC-E Transmitted As UPC-E >



UPC-E Transmitted As UPC-A



EAN-8 Transmitted As EAN 8 >



EAN-8 Transmitted As EAN-13



ISBN – Active



<ISBN - Not Active>



ISMN – Active



<ISMN - Not Active>



ISSN – Active



<ISSN - Not Active >



GTIN Processing – Active



<GTIN Processing - Not Active >



7.19.2 Supplemental Setup

<ADD-ON Digits Not Required
but Transmitted If Read>



ADD-ON Digits
Required and Transmitted



ADD-ON 2 ON



<ADD-ON 2 OFF >



ADD-ON 5 ON



<ADD-ON 5 OFF >



7.19.3 Check Digit Transmission

**<UPC-A Check Digit
Transmission ON >**



UPC-A Check Digit
Transmission OFF



**<UPC-E Check Digit
Transmission ON >**



UPC-E Check Digit
Transmission OFF



**<EAN-8 Check Digit
Transmitted ON >**



EAN-8 Check Digit
Transmission OFF



**<EAN-13 Check Digit
Transmitted ON >**

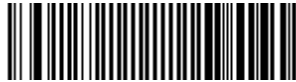


EAN-8 Check Digit
Transmission OFF



7.19.4 Symbology Identifier

<UDSI-UPC-A-Default"A0">



<UDSI-UPC-E-Default"E0">



<UDSI-EAN-8-Default"FF">



<UDSI-EAN-13-Default"F">



<Code Mark-UPC-A-Default"A">



<Code Mark-UPC-E-Default"E">



<Code Mark-EAN-8-Default"FF">



<Code Mark-EAN-13-Default"F">



7.18 GS1 Composite Settings

7.20.1 EAN/UPC Composite Message Decoding

<Auto-Discriminate >



Always Linked



Never Linked



7.20.2 Symbology Identifier

<UDSI-CC-A/B-Default"G0">



<UDSI-CC-C-Default"G1">



<Code Mark-CC-A/B-Default"*">



<Code Mark-CC-C-Default"*">



7.20.3 Linear Transmission Only

Active



<Not Active >



7.19 GS1 DataBar Settings

7.21.1 Symbology Identifier

<Omni-UDSI-Default"C3">



<Omni-Code Mark-Default"*">



<Limited-UDSI-Default"C4">



<Limited-Code Mark-Default"*">



<Expanded-UDSI-Default"C5">



<Expanded-Code Mark-Default"*">



7.20 Infomail Settings

7.22.1 Symbology Identifier

<UDSI-Default"P8">



<Code Mark-Default "*" >



7.21 Interleaved 2 of 5 Parameters

7.23.1 Check Digit Verification

<Not Used >



Modulo 10



French CIP



<Not Transmitted >



Transmitted



7.23.2 Symbology Identifier

<UDSI-Default "B2" >



<Code Mark-Default "I" >



7.23.3 Reading Tolerance

<High >



Medium



Low



7.22 Japan Post Settings

7.24.1 Symbology Identifier

<UDSI-Default"P5">



<Code Mark-Default"*">



7.24.2 Check Digit Transmission

<Active >



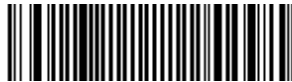
Not Active



7.23 Matrix 2 of 5 Settings

7.25.1 Symbology Identifier

<UDSI-Default"B4">



<Code Mark-Default"D">



<Code Mark-Regular>



Code Mark-China Post



7.24 MaxiCode Settings

7.26.1 Symbology Identifier

<UDSI-Default"D2">



<Code Mark-Default"*">



7.26.2 Mode 0

Active



<Not Active>



7.26.3 Header

<Regular(AIM)>



Extended



7.25 MicroPDF417 Settings

7.27.1 Symbology Identifier

<UDSI-Default"C8">



<Code Mark-Default"*">



7.27.2 Code 128 Emulation

Active



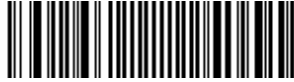
<Not Active >



7.26 MSI code parameters Settings

7.27.1 Symbology Identifier

<UDSI-Default"B8">



<Code Mark-Default"D">



7.27.2 Check Digit Verification

<Modulo 10 >



Double Modulo 10



Check Digit Transmitted >



Check Digit Not
Transmitted



7.27 PDF417 Settings

7.29.1 Symbology Identifier

<UDSI-Default"C7">



<Code Mark-Default"*">



7.29.2 Irregular PDF

Active



<Not Active>



7.29.3 Control Header

Transmitted



<Not Transmitted>



7.29.4 Optional Fields

File Name Transmitted



**<File Name
Not Transmitted >**



Segment Count Transmitted



**<Segment Count
Not Transmitted >**



Time Stamp Transmitted



**<Time Stamp
Not Transmitted >**



Sender Transmitted



**<Sender Not
Transmitted >**



Addressee Transmitted



**<Addressee
Not Transmitted >**



File Size Transmitted



<File Size
Not Transmitted >



Checksum Transmitted



<Checksum Not
Transmitted >



7.28 Planet settings

7.30.1 Symbology Identifier

<UDSI-Default"P1">



<Code Mark-Default"*">



7.30.2 Check Digit Transmission

<Active >



Not Active



7.29 Plessey Code Parameters

7.31.1 Symbology Identifier

<UDSI-Default"C2">



<Code Mark-Default"D">



7.31.2 Check Digit Transmission

Check Digit Transmitted



<Check Digit
Not Transmitted >



7.30 Postnet Settings

7.32.1 Symbology Identifier

<UDSI-Default"P0">



<Code Mark-Default"+">



7.32.2 Check Digit Transmission

<Active>



Not Active



7.31 QR Code Settings

7.33.1 Model 1 Control

Active



<Not Active >



7.33.2 Symbology Identifier

<UDSI-Default"D1">



<Code Mark-Default"*">



7.32 Standard 2 of 5 Settings

7.34.1 Symbology Identifier

<UDSI-Default"B5">



<Code Mark-Default"D">



7.34.2 Format

<Identicon (6 start/stop bars)>



Computer Identics
(4 start/stop bars)



7.34.3 Check Digit Verification

<Not Used >



Modulo 10



Transmitted



Not Transmitted >



7.33 Sweden Post Settings

7.35.1 Symbology Identifier

<UDSI-Default"P7">



<Code Mark-Default "*" >



7.34 Telepen Settings

7.36.1 Symbology Identifier

<UDSI-Default"C6">



<Code Mark-Default "*" >



7.36.2 Format

<ASCII>



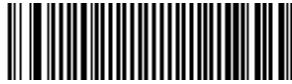
Numeric



7.35 TLC 39 Settings

7.37.1 Symbology Identifier

<UDSI-Default"H0">



<Code Mark-Default"*">



7.37.2 Linear Transmission Only

Active



<Not Active >



7.37.3 ECI security

<10>



7.36 Miscellaneous Parameters

7.38.1 Symbology Identifier

Symbology Identifier Transmitted



<Symbology Identifier
Not Transmitted>



With this function ON, a leading character will be added to the output string while scanning codes, user may refer to the following table to know what kind of barcode is scanned.

Please refer to the table below for matching code Symbology Identifier of codes read in.

	ID	Code Type	ID
Aztec	*	Interleaved 2 of 5	I
Codabar	D	GS1 DataBar Omini	*
Code 11	*	GS1 DataBar Expanded	*
Code 39	*	GS1 DataBar Limited	*
Code 93	D	MSI code	*
Code 128	D	Plessey Code	D
DataMatrix	*	PDF417	*
EAN-8	FF	MicroPDF417	*
EAN-13	F	UPC-A	A
EAN-128	D	UPC-E	E

7.37 Preambles and Postambles

7.39.1 Preamble

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

Example:

To send a <STX> in front of the barcode, scan only programming code <STX>.

As a result, the scanner will give the following barcode output: [<STX>] [BAR CODE DATA]

<Preamble None >



<STX>



7.39.2 Postamble

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

Example:

To send a <ETX> after the Barcode, scan only programming code <ETX>.

As a result, the scanner will give the following barcode data output:

[BAR CODE DATA] [<ETX>]

Postamble None



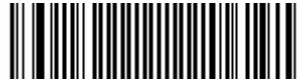
<CR+LF >



CR



LF



<ETX>





























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		
Industrial 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	
<u>IG-300BT</u>	
Scanner	Approx. 210g
Cradle	Approx. 105g
<u>Accessory</u>	
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	Horizontal 70° ±10% (Forward:

angle	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
RF Output Power	14dBm (Class 2)
Bluetooth distance range	Class 2 up to 10M Class 1 up to 100M
Data storage on BT disconnect	50 scans
Modulation Method	GFSK for 1Mbps; /4- DQPSK for 2Mbps; 8DPSK for 3Mbps

D-3 Indicator LED Status

a) IG-300 Series

Light	Signal	Status
Green	1 blink and 1 beep	good read and transmitted

b) IG-300BT Series

Cradle

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

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
	4 blink and 4 beeps	low Battery warning
	2 blink and 2 beeps	good read but transmit fail
	continue on	in charging
Blue	3 blink and 3 beeps	BT disconnect
	fast flash twice per 2 seconds	on connecting
	dark	BT disconnect before sleep
	continuous on and 1 long beep	BT connected
Red Blue	1 blink at the same time and 2 beeps	setting ok
Red Green	red and green light flash alternately three times	start charging
Green Red Blue	1 blink taking turns 3 times	battery changed

D-4 Electrical Characteristics

Operation Voltage	5 VDC \pm 5%
Current Operating	450 mA (max) @ 5 VDC
Current Standby	37 mA typical @ 5 VDC
AC transforme	5.2 VDC @ 650 mA / Input AC 100-

rs	240V
----	------

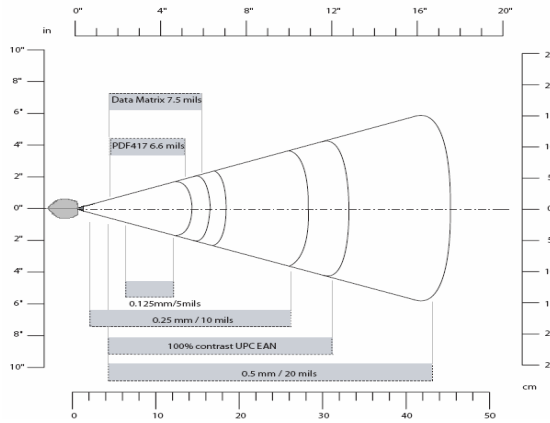
D-5 Environmental

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 Symbolgies

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

Codabar



Code 39



Code 93



Code 128



DataMatrix



EAN 8



EAN13



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



UPC E



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 to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the installation. , 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 interference by one or more of the following measures:

- 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 for help

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions

- (1) This device may not cause harmful interference and
- (2) This device must accept any interference received, including interference that may cause undesired operation

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

This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body .

0145-88E0041
V01