Area Imager Bar Code Scanner

2D CONFIGURATION GUIDE

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

Table of Contents

Chapter 1   General Description

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

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

FCC Approval

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

CE Standards

The CE mark as shown here indicates this product had been tested in accordance with the procedures given in European Council Directive.

LEGISLATION AND WEEE SYMBOL

This marking shown on the product or its literature, indicates that it should not be disposed with other households wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable re-use of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase.

Chapter 2 Introduction

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

Important Notice

1. This document is in A6 size. Please check your printing setting before printing it out.

2. When printing barcodes for programming, the use of a high-resolution laser printer is strongly suggested for the best scan result.

3. The settings shall be updated periodically without prior notice. For the latest version, please contact your authorized distributor.

Factory Default Settings

The factory default settings are shown with **< >** and bold in the following sections.
By scanning "Set All Defaults" label, the settings will go back to the factory default settings which are shown as Appendix A.

Settings and Programming

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

Note: It may need to hide adjacent code patches with hand when doing programming scanning.

Chapter 3   Main Configuration

A. PROGRAMMING FLOW CHART

```
          ┌──────────────────────┐   ┌──────────────────┐
   ┌─────▶│  Start Configuration │   │  Set All Default │
   │      └──────────────────────┘   └──────────────────┘
   │                 │
   │      ┌──────────────────────┐
   │      │ Interface Selection, │
   │      │ Reading Mode,        │
   │      │ Barcode Parameters,  │
   │      │ Misc. Parameters,    │
   │      │ ...etc.              │
   │      └──────────────────────┘
   │                 │
   │      ┌──────────────────────┐   ┌──────────────────┐
   └──────│  Abort Configuration │   │  Save Parameters │
          └──────────────────────┘   └──────────────────┘
```
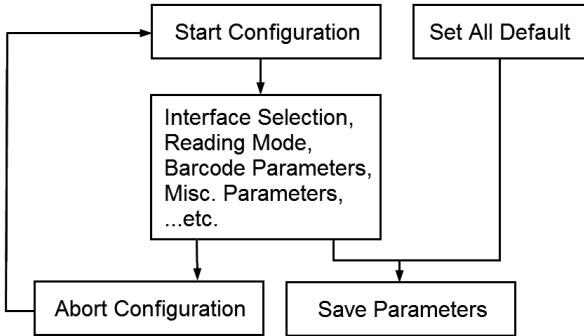
The programming flow is:

1. Scan **"Start Configuration"** to enter programming status.
2. Looping: Scan all necessary setting parameters that meet your application.
3. Scan **"Save Parameters"** to permanently save the programmed settings.
4. To exit programming status without saving the settings, scan "**Abort Configuration**".
5. To set all settings back default, scan "**Set All Default**" and "**Save Parameters**".

B. MAIN PAGE OF CONFIGURATION

Start Configuration

To enter program status, scan "Start Configuration".

Start Configuration

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

%$+/3

Save Parameters

All settings will be saved and taken effect immediately.
The scanner exits programming status.

Save Parameters

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

%$+/0

Abort Configuration

To terminate current programming status without saving the settings, scan "Abort Configuration".

Abort Configuration

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

%$+/6

Set All Default

Restore factory-configured default (listed in Appendix A) by scanning "Set All Default" followed by "Save Parameters".

Set All Default

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

%$+/2

Version Information

Scan this barcode without general programming
procedure to display decoder version and date code.

Version Information

%$+/5

C. IMAGER DECODING SETTING

<Standard 1D & 2D Barcodes>

||||||||||||||||||||||||||||||||||||||
%%083

1D Barcodes Only

||||||||||||||||||||||||||||||||||||||
%%081

2D Barcodes Only

||||||||||||||||||||||||||||||||||||||
%%082

Chapter 4   Interface Selection

RS232 Mode

%00U8

USB Mode

%0XO8

Virtual COM Mode

%0088

<USB HID Keyboard OFF>

```
%09H0
```

USB HID Keyboard ON

```
%09H1
```

Chapter 5 Reading Mode Selection

Good Read OFF
Feature: When press the trigger button, the illumination light turns on to read barcode. When the scanner reads barcode (good read), the illumination light turns off.
a. If a barcode is read, the illumination light turns off immediately.
b. If no barcode is read within a certain period, the illumination light turns off.

Trigger ON/OFF
Feature: Trigger to turn on illumination light, release to turn off light.
Normal Status: The illumination light is normally off. When press and hold the trigger button, the light turns on to read barcodes.
a. If a barcode is read, the illumination light turns off immediately.
b. If no barcode is read and the trigger button is released, the illumination light turns off.

Flash/Trigger OFF
Feature: The illumination light is flashing.
Normal Status: The illumination light always keeps flashing for reading barcodes.
a. If a barcode is read, the illumination light turns solid on for a period for another reading.
b. If no barcode is read within the period, the illumination light returns flashing.
c. When press the trigger button, the illumination light turns off. Press the trigger again, the light returns flashing.

Flash/Auto Power ON

Feature: The illumination light is flashing. It is always auto powered on to flash.

Normal Status: The illumination light always keeps flashing.

a. If a barcode is read, the illumination light turns solid on for a period for another reading.

b. If no barcode is read within the period, the light returns flashing.

c. The trigger button is disabled.

Auto Sense

Feature: Automatically detects the existing of goods.

Normal Status: The illumination light is normally off. It will switch on the illumination to decode when detects a goods in front of it under normal light environment.

a. When a barcode is detected in front of scanner, the illumination light turns on for a period for read barcodes.

b. If a barcode is read within the period, the illumination light turns off immediately

c. If no barcode is read within the period, the light turns off.

d. If pressing the trigger button, the light turns on immediately for a period for read barcodes.

Auto Sense/Aimer Detection

Feature: Automatically detects the existing of goods by Aimer.

Normal Status: The illumination light is normally off, but the Aimer keeps flushing for barcode detection under dimming or extremely low light environment.

a. When a barcode is detected in front of scanner, the illumination light turns on for a period for read barcodes.

b. If a barcode is read within the period, the illumination light turns off immediately

c. If no barcode is read within the period, the light turns off.

d. If pressing the trigger button, the light turns on immediately for a period for read barcodes.

Good Read OFF
(Default for HandHeld Models)
(Inapplicable to AutoSense Models)

%0271

Trigger ON/OFF
(Inapplicable to AutoSense Models)

%0270

Flash/Trigger OFF

%0274

Flash/Auto Power On

```
%0276
```

Auto Sense
(Default for AutoSense Models)

```
%09F8
```

Auto Sense/Aimer Detection

```
%09FC
```

Chapter 6　Reading Surface Selection

A.   READING SURFACE

<General>

```
%%3S0
```

Screen

```
%%3S1
```

Mixed

```
%%3S2
```

Chapter 7   RS232 Parameters

B. SETUP BAUD RATE

9600

%0Y77

19200

%0Y74

38400

%0Y75

57600

```
%0Y78
```

<115200>

```
%0Y79
```

B.   SETUP DATA BITS

7 Data Bits

```
%0Y80
```

<8 Data Bits>

0   %0Y88

C. SETUP STOP BITS

<1 Bit>

```
%0YO8
```

2 Bits

```
%0YO0
```

D. SETUP PARITY

<None>

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%0YN7

Even

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%0YN2

Odd

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%0YN3

E. HANDSHAKING

RTS/CTS Enable

%0188

<RTS/CTS Disable>

%0180

ACK/NAK Enable

```
%0144
```

<ACK/NAK Disable>

```
%0140
```

XON/XOFF Enable

```
%03K4
```

<XON/XOFF Disable>

```
%03K0
```

Chapter 8   Keyboard Parameters

A. UPPER/LOWER CASE

<Normal>

||||||||||||||||||||||||||||||||
%0330

Upper Case

||||||||||||||||||||||||||||||||
%0331

Lower Case

||||||||||||||||||||||||||||||||
%0332

B. CAPS LOCK DETECTION

Enable

%0X88

<Disable>

%0X80

C. SEND CHARACTER BY ALT METHOD

Enable

%03O8

<Disable>

%03O0

D. SELECT NUMERIC PAD

ON

```
%01K4
```

<OFF>

```
%01K0
```

Chapter 9 Output Characters

A. SELECT TERMINATOR

<CR+LF>

```
%7S2+
```

None

```
%7S7+
```

CR

```
%7S0+
```

LF

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%7S1+

Space

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%7S4+

HT (TAB)

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%7S3+

STX-ETX

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%7S5+

B. TIME-OUT BETWEEN CHARACTERS

<0 ms>

%0070

5 ms

%0071

10 ms

%0072

25 ms

%0073

50 ms

%0074

100 ms

%0075

200 ms

%0076

300 ms

%0077

Chapter 10 Symbology Selection

A. 1D SYMBOLOGY SELECTION

<UPC-A ON>

```
%0A44
```

UPC-A OFF

```
%0A40
```

<UPC-E ON>

```
%0BO8
```

UPC-E OFF

```
%0BO0
```

<EAN-13/JAN-13/ISBN-13 ON>

```
%0A22
```

EAN-13/JAN-13/ISBN-13 OFF

```
%0A20
```

<EAN-8/JAN-8 ON>

%0A11

EAN-8/JAN-8 OFF

%0A10

<CODE 39 ON>

%0EO8

CODE 39 OFF

%0EO0

<CODE 128 ON>

```
%0FO8
```

CODE 128 OFF

```
%0FO0
```

<CODABAR/NW7 ON>

```
%0JO8
```

CODABAR/NW7 OFF

```
%0JO0
```

<Interleaved 25 ON>

%0GO8

Interleaved 25 OFF

%0GO0

Industrial 25 ON

%0HO8

<Industrial 25 OFF>

%0HO0

Matrix 25 ON

```
%0IO8
```

<Matrix 25 OFF>

```
%0IO0
```

CODE 93 ON

```
%0KO8
```

<CODE 93 OFF>

```
%0KO0
```

CODE 11 ON

```
%0LO8
```

<CODE 11 OFF>

```
%0LO0
```

China Post ON

```
%0MO8
```

<China Post OFF>

```
%0MO0
```

MSI/PLESSEY ON

```
%0NO8
```

<MSI/PLESSEY OFF>

```
%0NO0
```

Telepen ON

```
%0TO8
```

<Telepen OFF>

```
%0TO0
```

GS1 DataBar Omnidirectional ON

%0UO8

<GS1 DataBar Omnidirectional OFF>

%0UO0

GS1 DataBar Limited ON

%0VO8

<GS1 DataBar Limited OFF>

%0VO0

GS1 DataBar Expanded ON

%0WO8

<GS1 DataBar Expanded OFF>

%0WO0

B. 2D SYMBOLOGY SELECTION

Select All Bar Codes

%1A/+

Aztec ON

%%012

<Aztec OFF>

%%022

<Data Matrix ON>

%%016

Data Matrix OFF

%%026

MicroPDF417 ON (Optional)

```
%%01D
```

<MicroPDF417 OFF>

```
%%02D
```

<PDF417 ON>

%%01F

PDF417 OFF

%%02F

<QR Code ON>

%%01I

QR Code OFF

%%02I

Micro QR Code ON

%%01M

<Micro QR OFF>

%%02M

Han Xin Code ON (Optional)

%%01L

<Han Xin Code OFF>

%%02L

Grid Matrix Code ON (Optional)

```
%%01N
```

<Grid Matrix Code OFF>

```
%%02N
```

Chapter 11 UPC/EAN/JAN

A. READING TYPE

UPCA=EAN13 ON

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

%0AK4

<UPCA=EAN13 OFF>

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

%0AK0

ISBN-10 Enable

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

%0B88

<ISBN-13 Enable>

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

%0B80

ISSN Enable

```
%0B44
```

<ISSN Disable>

```
%0B40
```

Decode with Supplemental

```
%01O0
```

<Auto discriminate Supplemental>

```
%01O8
```

Expand UPC-E Enable

```
%0BH1
```

<Expand UPC-E Disable>

```
%0BH0
```

EAN8=EAN13 Enable

```
%0AO8
```

<EAN8=EAN13 Disable>

```
%0AO0
```

UCC Coupon Extended Code Enable

%0DI2

<UCC Coupon Extended Code Disable>

%0DI0

GTIN Format Enable

%0X44

<GTIN Format Disable>

%0X40

B. SUPPLEMENTAL SETUP

<Not Transmit>

||||| ||| || |||| ||| |||| ||| |||||
%0B33

Transmit Supplemental 2 Digits

||||| ||| || |||| ||| |||| ||| |||||
%0B31

Transmit Supplemental 5 Digits

||||| ||| || |||| ||| |||| ||| |||||
%0B32

Transmit Supplemental 2&5 Digits

%0B30

C. CHECK DIGIT TRANSMISSION

<UPC-A Check Digit Transmission ON>

%0AI2

UPC-A Check Digit Transmission OFF

%0AI0

<UPC-E Check Digit Transmission ON >

%0BI2

UPC-E Check Digit Transmission OFF

%0BI0

<EAN-8 Check Digit Transmission ON>

%0A88

EAN-8 Check Digit Transmission OFF

%0A80

<EAN-13 Check Digit Transmission ON>

```
%0AH1
```

EAN-13 Check Digit Transmission OFF

```
%0AH0
```

ISSN Check Transmission ON

```
%0BK4
```

<ISSN Check Transmission OFF>

```
%0BK0
```

Chapter 12 Code 39

A. TYPE OF CODE

<Standard>

```
%0EH1
```

Full ASCII

```
%0EH0
```

<Italian Pharmacy/Code 32 OFF>

```
%0E80
```

Italian Pharmacy/Code 32 ON

```
%0E88
```

B. CHECK DIGIT TRANSMISSION

<Do Not Calculate Check Digit>

```
%0EM2
```

Calculate Check Digit & Transmit

```
%0EM6
```

Calculate Check Digit & Not Transmit

```
%0EM4
```

C. OUTPUT START/STOP CHARACTER

Enable

%0E44

<Disable>

%0E40

D. DECODE ASTERISK

Enable

%0E22

<Disable>

%0E20

E. SETUP CODE LENGTH

<Variable>

||||||||||||||||||||||||||||||||
%4E1+

1. Fix Length 1st Set Begin

||||||||||||||||||||||||||||||||
%4E00

2. Decimal Value
(Appendix C)

3. Fix Length 1st Set Complete

||||||||||||||||||||||||||||||||
%4E01

1. Fix Length 2nd Set Begin

%4E00

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Set Complete

%4E02

1. Minimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

%2C0+

Chapter 13   Code 128

A. READING TYPE

UCC/EAN-128 Enable

||||||| ||| |||||| ||| ||| |||| ||| |||
%0F44

<UCC/EAN-128 Disable>

||||||| ||| |||||| ||| ||| ||| |||| |||
%0F40

Code ID]C1 Enable

%0F22

<Code ID]C1 Disable>

%0F20

Group Separators (GS) Enable

%0F11

<Group Separators (GS) Disable>

%0F10

B. CHECK DIGIT TRANSMISSION

<Do Not Calculate Check Digit>

```
%0FN1
```

Calculate Check Digit & Transmit

```
%0FN7
```

Calculate Check Digit & Not Transmit

```
%0FN5
```

C. APPEND FNC2

ON

```
%0F88
```

<OFF>

```
%0F80
```

D. SETUP CODE LENGTH

<Variable>

||||||||||||||||||||||||||||
%4F1+

1. Fix Length 1st Set Begin

||||||||||||||||||||||||||||
%4F00

2. Decimal Value
(Appendix C)

3. Fix Length 1st Set Complete

||||||||||||||||||||||||||||
%4F01

1. Fix Length 2nd Set Begin

%4F00

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Set Complete

%4F02

1. Minimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

%2C1+

Chapter 14 Interleaved 25

A. CHECK DIGIT TRANSMISSION

<Do Not Calculate Check Digit>

```
%0GN3
```

Calculate Check Digit & Transmit

```
%0GN7
```

Calculate Check Digit & Not Transmit

```
%0GN5
```

B. SETUP NUMBER OF CHARACTERS

<Even>

```
%0G88
```

Odd

```
%0G80
```

C. BRAZILLIAN BANKING CODE

\<Disable\>

```
%0G40
```

Enable

```
%0G44
```

D. SETUP CODE LENGTH

<Variable>

%4G1+

1. Fix Length 1st Begin

%4G00

2. Decimal Value
 (Appendix C)

3. Fix Length 1st Complete

%4G01

1. Fix Length 2nd Begin

||||||||||||||||||||||||||||
%4G00

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

||||||||||||||||||||||||||||
%4G02

1. Minimum Length Begin

||||||||||||||||||||||||||||
%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

||||||||||||||||||||||||||||
%2C2+

Chapter 15 Industrial 25

A. READING TYPE

IATA25 ENABLE

```
%0H44
```

<IATA25 DISABLE>

```
%0H40
```

B. CHECK DIGIT TRANSMISSION

<Do Not Calculate Check Digit>

%0HN3

Calculate Check Digit & Transmit

%0HN7

Calculate Check Digit & Not Transmit

%0HN5

C. SETUP CODE LENGTH

\<Variable\>

```
%4H1+
```

1. Fix Length 1st Begin

```
%4H00
```

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

```
%4H01
```

1. Fix Length 2nd Begin

||||||| ||| |||||| |||| |||| ||| |||
%4H00

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

||||||| ||| |||||| |||| |||| ||| |||
%4H02

1. Minimum Length Begin

||||||| ||| |||||| |||| |||| ||| |||
%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

||||||| ||| |||||| |||| |||| ||| |||
%2C3+

Chapter 16 Matrix 25

A. CHECK DIGIT TRANSMISSION

<Do Not Calculate Check Digit>

```
%0IN3
```

Calculate Check Digit & Transmit

```
%0IN7
```

Calculate Check Digit & Not Transmit

```
%0IN5
```

B. SETUP CODE LENGTH

<Variable>

%4I1+

1. Fix Length 1st Begin

%4I00

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

%4I01

1. Fix Length 2nd Begin

%4I00

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

%4I02

1. Minimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

%2C4+

Chapter 17 Codabar/NW7

A. START/STOP CHARACTERS

ON

```
%0JH1
```

<OFF>

```
%0JH0
```

B. TRANSMISSION TYPE OF START/STOP

<A/B/C/D Start>

%04VF

<A/B/C/D Stop>

%04FF

A Start

```
%04V1
```

A Stop

```
%04F1
```

B Start

```
%04V2
```

B Stop

```
%04F2
```

C Start

%04V4

C Stop

%04F4

D Start

%04V8

D Stop

%04F8

C. SETUP CODE LENGTH

<Variable>

```
%4J1+
```

1. Fix Length 1st Begin

```
%4J00
```

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

```
%4J01
```

1. Fix Length 2nd Begin

```
%4J00
```

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

```
%4J02
```

1. Minimum Length Begin

```
%2+-/
```

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

```
%2C5+
```

Chapter 18 Code 93

A. **CHECK DIGIT TRANSMISSION**

Do Not Calculate Check Digit

```
%0KN3
```

<Calculate 2 Check Digits & Not Transmit>

```
%0KN4
```

B. SETUP CODE LENGTH

<Variable>

%4K1+

1. Fix Length 1st Begin

%4K00

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

%4K01

1 .Fix Length 2nd Begin

%4K00

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

%4K02

1. Minimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete
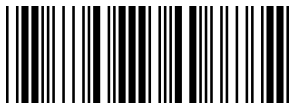
%2C6+

Chapter 19 Code 11

A. CHECK DIGIT TRANSMISSION

\<Do Not Calculate Check Digit\>

%0LN3

Calculate 1 Check Digit & Transmit

%0LN7

Calculate 1 Check Digit & Not Transmit

%0LN5

Calculate 2 Check Digit & Transmit

```
%0LN6
```

Calculate 2 Check Digit & Not Transmit

```
%0LN4
```

B. SETUP CODE LENGTH

\<Variable\>

```
%4L1+
```

1. Fix Length 1st Begin

```
%4L00
```

2. Decimal Value
  (Appendix C)

3. Fix Length 1st Complete

```
%4L01
```

1. Fix Length 2nd Begin

```
%4L00
```

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

```
%4L02
```

1. Minimum Length Begin

```
%2+-/
```

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

```
%2C7+
```

Chapter 20 MSI/PLESSEY

A. CHECK DIGIT TRANSMISSION

<Do Not Calculate Check Digit>

%0NN3

Calculate Check Digit & Transmit

%0NN7

Calculate Check Digit & Not Transmit

%0NN5

B. SETUP CODE LENGTH

<Variable>

||||||||||||||||||||||||
%4N1+

1. Fix Length 1st Begin

||||||||||||||||||||||||
%4N00

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

||||||||||||||||||||||||
%4N01

1. Fix Length 2nd Begin

```
%4N00
```

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

```
%4N02
```

1. Minimum Length Begin

```
%2+-/
```

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

```
%2C9+
```

Chapter 21 Telepen

A. TYPE OF CODE

<Full ASCII Mode>

%0T80

Compressed Numeric Mode

%0T88

B. CHECK DIGIT TRANSMISSION

<Do Not Calculate Check Digit>

%0TN3

Calculate Check Digit & Transmit

%0TN7

Calculate Check Digit & Not Transmit

%0TN5

C. SETUP CODE LENGTH

<Variable>

%4T1+

1. Fix Length 1st Begin

%4T00

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

%4T01

1. Fix Length 2nd Begin

%4T00

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

%4T02

1. Minimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

%2CF+

Chapter 22 GS1 DataBar

A. GS1 DATABAR OMNIDIRECTIONAL

<Transmit Check Digit>

%0UN7

Don't Transmit Check Digit

%0UN5

\<Transmit Application ID\>

%0U88

Don't Transmit Application ID

%0U80

\<Transmit Symbology ID\>

%0U44

Don't Transmit Symbology ID

%0U40

B. **GS1 DATABAR LIMITED**

<Transmit Check Digit>

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%0VN7

Don't Transmit Check Digit

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%0VN5

\<Transmit Application ID\>

```
%0V88
```

Don't Transmit Application ID

```
%0V80
```

\<Transmit SymbologyID\>

```
%0V44
```

Don't Transmit Symbology ID

```
%0V40
```

C. **GS1 DATABAR EXPANDED**

< Transmit Symbology ID>

```
%0W44
```

Don't Transmit Symbology ID

```
%0W40
```

Chapter 23 Aztec

A. SETUP CODE LENGTH

<Variable>

‖‖‖‖‖‖‖‖‖‖‖‖‖
%%22+

1. Fix Length 1st Begin

‖‖‖‖‖‖‖‖‖‖‖‖‖
%%22L

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

‖‖‖‖‖‖‖‖‖‖‖‖‖
%%22Y

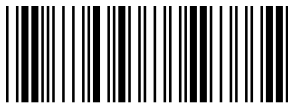**1. Fix Length 2nd Begin**

%%22L

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

%%22Z

1. Minimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

%2CA+

Chapter 24 Data Matrix

A. SETUP CODE LENGTH

\<Variable\>

```
%%26+
```

1. Fix Length 1st Begin

```
%%26L
```

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

```
%%26Y
```

1. Fix Length 2nd Begin

||||||||||||||||||||||||||
%%26L

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

||||||||||||||||||||||||||
%%26Z

1. Minimum Length Begin

||||||||||||||||||||||||||
%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

||||||||||||||||||||||||||
%2CC+

B. READING TYPE

GS1-Data Matrix Enable

%%3R1

<GS1-Data Matrix Disable>

%%3R0

Code ID]d2 Enable

%%3R3

<Code ID]d2 Disable>

%%3R2

Group Separator (GS) Enable

```
%%3R5
```

<Group Separators (GS) Disable>

```
%%3R4
```

Chapter 25 PDF417

A. SETUP CODE LENGTH

<Variable>

%%2F+

1. Fix Length 1st Begin

%%2FL

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

%%2FY

1. Fix Length 2nd Begin

%%2FL

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

%%2FZ

1. Mnimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Mnimum Length Complete

%2CJ+

Chapter 26 Micro PDF417 (Optional)

A. SETUP CODE LENGTH

<Variable>

```
%%2D+
```

1. Fix Length 1st Begin

```
%%2DL
```

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

```
%%2DY
```

1. Fix Length 2nd Begin

%%2DL

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

%%2DZ

1. Minimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

%2CE+

Chapter 27 QR Code

A. SETUP CODE LENGTH

<Variable>

```
%%2I+
```

1. Fix Length 1st Begin

```
%%2IL
```

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

```
%%2IY
```

1. Fix Length 2nd Begin

%%2IL

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

%%2IZ

1. Minimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

%2CG+

A. READING TYPE

GS1-QR Code Enable

%%3Q1

<GS1-QR Code Disable>

%%3Q0

Code ID]Q3 Enable

%%3Q3

<Code ID]Q3 Disable>

%%3Q2

Group Separator (GS) Enable

```
%%3Q5
```

<Group Separator (GS) Disable>

```
%%3Q4
```

Chapter 28 Micro QR Code

A. SETUP CODE LENGTH

\<Variable\>

%%2N+

1. Fix Length 1st Begin

%%2NL

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

%%2NY

1. Fix Length 2nd Begin

%%2NL

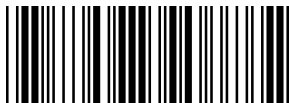**2. Decimal Value**
(Appendix C)

3. Fix Length 2nd Complete

%%2NZ

1. Minimum Length Begin

%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

%2CH+

Chapter 29 Han Xin Code (Optional)

A. SETUP CODE LENGTH

<Variable>

%%2L+

1. Fix Length 1st Begin

%%2LL

2. Decimal Value
  (Appendix C)

3. Fix Length 1st Complete

%%2LY

1. Fix Length 2nd Begin

||||||||||||||||||||||||||||
%%2LL

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

||||||||||||||||||||||||||||
%%2LZ

1. Minimum Length Begin

||||||||||||||||||||||||||||
%2+-/

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

||||||||||||||||||||||||||||
%2CI+

Chapter 30 Grid Matrix (Optional)

A. SETUP CODE LENGTH

<Variable>

%%2O+

1. Fix Length 1st Begin

%%2OL

2. Decimal Value
(Appendix C)

3. Fix Length 1st Complete

%%2OY

1. Fix Length 2nd Begin

```
%%2OL
```

2. Decimal Value
(Appendix C)

3. Fix Length 2nd Complete

```
%%2OZ
```

1. Minimum Length Begin

```
%2+-/
```

2. Decimal Value
(Appendix C)

3. Minimum Length Complete

```
%2CK+
```

Chapter 31 Language Selection

This language selection applies only to the USB HID (Human Interface Device Keyboard Emulation) devices.

<US English Keyboard >

```
%0ZV0
```

UK English Keyboard

```
%0ZV1
```

Italian Keyboard

```
%0ZV2
```

Spanish Keyboard

%0ZV3

French Keyboard

%0ZV4

German Keyboard

%0ZV5

Swedish Keyboard

%0ZV6

Swiss Keyboard

%0ZV7

Hungarian Keyboard

%0ZV8

Japanese Keyboard

```
%0ZV9
```

Belgian Keyboard

```
%0ZVA
```

Portuguese Keyboard

```
%0ZVB
```

Danish Keyboard

```
%0ZVC
```

Dutch Keyboard

```
%0ZVD
```

Turkish Keyboard

```
%0ZVE
```

Reserved

```
%0ZVF
```

Chapter 32 Bar Code ID

Code ID identifies the code type of a scanned bar code. This is useful when the decoder is decoding more than one code type. In addition to any single prefix already added, the code ID characters are inserted between the prefix and the decoded data.

Select no Code ID, default Code ID, AIM Code ID, or user defined Code ID to meet required application.

For default Code Identifiers and AIM Code Identifiers, see Appendix B.

A. IDENTIFIER FORMAT

ON

%00H1

<OFF>

%00H0

<Default Code Identifiers>

%913+

AIM Code Identifiers

%00H2

166

B. USER DEFINE CODE ID

To set the user define code ID:
1. Scan symbology "Begin".
2. Go to ASCII Characters in Appendix D. Scan the barcode(s) that represents the desired code ID.
3. Scan symbology "Complete".

Note: The maximum defined characters for Code ID are 3.

1. UPC-A Begin

||||| ||| ||| ||||| ||| |||
%91A+

2. ASCII Characters
(Appendix D)

3. UPC-A Complete

||||| ||| ||| ||||| ||| |||
%91A0

167

1. UPC-E Begin

%91B+

2. ASCII Characters
(Appendix D)

3. UPC-E Complete

%91B0

1. EAN-13/JAN-13 Begin

```
%91Y+
```

2. ASCII Characters
(Appendix D)

3. EAN-13/JAN-13 Complete

```
%91Y0
```

1. EAN-8/JAN-8 Begin

```
%91Z+
```

2. ASCII Characters
(Appendix D)

3. EAN-8/JAN-8 Complete

```
%91Z0
```

1. CODE 39 Begin

%91E+

2. ASCII Characters
(Appendix D)

3. CODE 39 Complete

%91E0

1. CODE 128 Begin

%91F+

2. ASCII Characters
(Appendix D)

3. CODE 128 Complete

%91F0

1. CODABAR/NW7 Begin

%91J+

2. ASCII Characters
(Appendix D)

3. CODABAR/NW7 Complete

%91J0

1. Interleaved 25 Begin

%91G+

2. ASCII Characters
(Appendix D)

3. Interleaved 25 Complete

%91G0

1. Industrial 25 Begin

```
%91H+
```

2. ASCII Characters
(Appendix D)

3. Industrial 25 Complete

```
%91H0
```

1. Matrix 25 Begin

```
%91I+
```

2. ASCII Characters
(Appendix D)

3. Matrix 25 Complete

```
%91I0
```

1. CODE 93 Begin

%91K+

2. ASCII Characters
(Appendix D)

3. CODE 93 Complete

%91K0

1. CODE 11 Begin

%91L+

2. ASCII Characters
(Appendix D)

3. CODE 11 Complete

%91L0

1. China Post Begin

%91M+

2. ASCII Characters
(Appendix D)

3. China Post Complete

%91M0

1. MSI/PLESSEY Begin

%91N+

2. ASCII Characters
(Appendix D)

3. MSI/PLESSEY Complete

%91N0

1. Telepen Begin

%91T+

2. ASCII Characters
(Appendix D)

3. Telepen Complete

%91T0

1. GS1 Databar Omnidirectional Begin

||||||||||||||||||||||||||||||
%91U+

2. ASCII Characters
(Appendix D)

3. GS1 Databar Omnidirectional Complete

||||||||||||||||||||||||||||||
%91U0

1. GS1 Databar Limited Begin

||||||||||||||||||||||||||||||
%91V+

2. ASCII Characters
(Appendix D)

3. GS1 Databar Limited Complete

||||||||||||||||||||||||||||||
%91V0

1. GS1 Databar Expanded Begin

%91W+

2. ASCII Characters
(Appendix D)

3. GS1 Databar Expanded Complete

%91W0

1. UCC/EAN-128 Begin

```
%91R+
```

2. ASCII Characters
(Appendix D)

3. UCC/EAN-128 Complete

```
%91R0
```

1. Reserved Begin

```
%91S+
```

2. ASCII Characters
(Appendix D)

3. Reserved Complete

```
%91S0
```

1. Aztec Begin

%%03A

2. ASCII Characters
(Appendix D)

3. Aztec Complete

%%03N

1. Data Matrix Begin

%%03C

2. ASCII Characters
(Appendix D)

3. Data Matrix Complete

%%03P
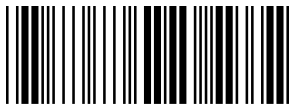
1. PDF417 Begin

%%03F

2. ASCII Characters
(Appendix D)

3. PDF417 Complete

%%03S

1. Micro PDF417 Begin (Optional)

%%03E

2. ASCII Characters
(Appendix D)

3. Micro PDF417 Complete

%%03R

1. QR Code Begin

%%03G

2. ASCII Characters
(Appendix D)

3. QR Code Complete

%%03T
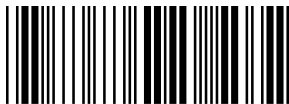
1. Micro QR code Begin

%%03H

2. ASCII Characters
(Appendix D)

3. Micro QR code Complete

%%03U

1. Han Xin Code Begin (Optional)

%%03I

2. ASCII Characters
(Appendix D)

3. Han Xin Code Complete

%%03V
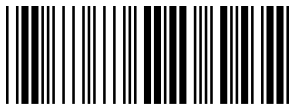
1. Grid Matrix Code Begin (Optional)

```
%%03J
```

2. ASCII Characters
(Appendix D)

3. Grid Matrix Code Complete

```
%%03W
```

Chapter 33 Accuracy

ACCURACY

<1 Time>

%0130

2 Times

%0131

3 Times

%0132

4 Times

%0133

Chapter 34   Beep

A. BEEP TONE

<High>

```
%01J3
```

Medium

```
%01J2
```

Low

```
%01J1
```

Off

```
%01J0
```

B. BEEP DURATION

The value is from 1 - 255. (Default is 10). Each level=10ms, e.g. 1=10ms, 2=20ms, 10=100ms…, 255=2550ms=2.55sec.

To configure beep duration, scan:
1. Scan "Begin".
2. Go to Decimal Value Table in Appendix C. Scan barcode(s) that represents the duration value.
3. Scan "Complete"**.**

1. Begin

%%371

2. Decimal Value (1-255)
(Appendix C)

3. Complete
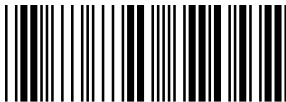
%%372

C. SILENT TIME BETWEEN BEEPS

The value is from 1 - 255. (Default is 3). Each level=10ms,
e.g. 1=10ms, 2=20, 3=30ms…, 255==2550ms=2.55sec.

To configure the value, scan:
1. Scan "Begin".
2. Go to Decimal Value Table in Appendix C. Scan barcode(s)
that represents the value.
3. Scan "Complete"

1. Begin

%%381

2. Decimal Value (1-255)
(Appendix C)

3. Complete

%%382

D. BEEP OPTIONS

<Good Read Beep ON>

```
%%391
```

Good Read Beep OFF

```
%%39A
```

<Error Beep ON>

```
%%392
```

Error Beep OFF

```
%%39B
```

<Power up Beep ON>

%0C44

Power up Beep OFF

%0C40

<Configure Beep ON>

%%393

Configure Beep OFF

%%39C

Chapter 35   Sensitivity of Continuous Reading

A. QUICK SETTING

<Fast>

```
%0388
```

Slow

```
%0380
```

B. AVOID SAME CODE DOUBLE READING

Enable

```
%0244
```

<Disable>

```
%0240
```

C. SAME CODE DELAY INTERVAL

This is to configure the length of delay time prior to an identical barcode can be rescanned. The value is defined from 1 - 50 that represents 100ms - 5 seconds in 100ms interval. The default value is 5 (0.5 seconds). This setting is only applicable to continuous and flash reading modes.

To setup same code delay reading interval:

1. Scan "Begin".

2. Go to Decimal Value Table in Appendix C. Scan barcode(s) that represents the delay reading interval. The range is from 1 to 50. An interval represents 0.1 second. Therefore, the available range is from 0.1 to 5 seconds.

3. Scan "Complete".

1. Begin

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%3000

2. Decimal Value (1-50)
(Appendix C)

3. Complete

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
%3001

Chapter 36   Indicator/Aimer/Illumination

A. INDICATOR

<Enable>

%02O8

Disable

%02O0

B. AIMER

<Enable>

%02K4

Disable

%02K0

C. ILLUMINATION

<Enable>

```
%02I2
```

Disable

```
%02I0
```

D. AUTOMATIC ILLUMINATION BRIGHTNESS

<Enable>

||||||||||||||||||||||||||||||
%02H1

Disable

||||||||||||||||||||||||||||||
%02H0

E. ILLUMINATION BRIGHTNESS

This setting is activated when 'Automatic Illumination Brightness' is disabled. The brightness value is from 1 - 100. (Default is 50)

To configure fixed brightness, scan:
1. Scan "Begin".
2. Go to Decimal Value Table in Appendix C. Scan barcode(s) that represents the brightness value.
3. Scan "Complete"

1. Begin

%%3E1

2. Decimal Value (1-100)
(Appendix C)

3. Complete

%%3E2

F.   INDICATOR AFTER GOOD READ

<Normal OFF>
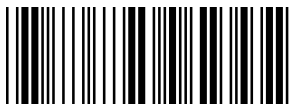
```
%%3K1
```

Normal ON

```
%%3K0
```

G. INDICATOR FLASHING

Enable

```
%%3I1
```

<Disable>
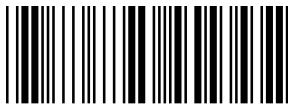
```
%%3I0
```

H. ILLUMINATION FLASHING AFTER GOOD READ

Enable

```
%%3J1
```

<Disable>

```
%%3J0
```

I. AIMER ALWAYS ON

Enable

||||||||||||||||||||||||||||
%%3L1

<Disable>

||||||||||||||||||||||||||||
%%3L0

Chapter 37   Image Type

J. INVERSED IMAGE

<Disable>

%%3B0

Inversed Image Only

%%3B1

Both

%%3B2

K.   MIRRORED IMAGE

<Disable>

```
%%3B3
```

Mirrored Image Only

```
%%3B4
```

Both

```
%%3B5
```

Chapter 38   Miscellaneous

A. AUTOSENSE SENSITIVITY

The sensitivity value is from 80 to 90. (Default is 85.)

To configure sensitivity, scan:
1. Scan "Begin".
2. Go to Decimal Value Table in Appendix C. Scan barcode(s) that represents the sensitivity value.
3. Scan "Complete"

1.Begin

||||||||||||||||||||||||||||
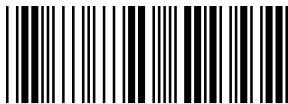
%%301

2. Decimal Value (80-90)
(Appendix C)

3. Complete

||||||||||||||||||||||||||||
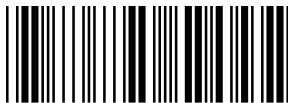
%%302

B. REVERSE OUTPUT CHARACTERS

<Disable>

```
%03H0
```

Enable

```
%03H1
```

C. POWER SAVING MODE

<Disable>

```
%%3D0
```

Enable

```
%%3D1
```

D. TIME TO ENTER POWER SAVING

The value is from 1 to 120. (Default is 20). Each level=0.5min, e.g. 1=0.5min, 2=1min, 20=10min…, 120=60min.

1. Begin
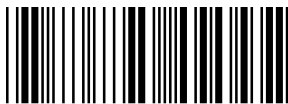
```
%%3D2
```

2. Decimal Value (1-120)
(Appendix C)

3. Complete
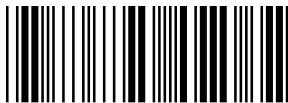
```
%%3D3
```

E. OUTPUT NON-PRINTABLE CHARS

<Disable>

||||||||||||||||||||||||||||||
%03I0

Enable

||||||||||||||||||||||||||||||
%03I2

Chapter 39 Multi-Byte Character Output

A. CODEPAGES

Scan corresponding codepage to read multi-byte encoded barcodes. Only **ONE codepage** is activated at a time. "Send Character by ALT Methods" should be enabled simultaneously.

Scan: "Send Character by ALT Method -> (codepage)"

<None>
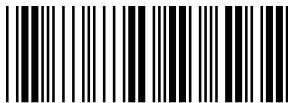
%%3C0

BIG-5 Traditional Chinese

%%3C1

GB2312 Simplified Chinese

%%3C2

Shift-JIS Japanese

%%3C3

KSC5601 Korean

%%3C4

UTF8 Traditional Chinese

%%3C5

UTF8 Simplified Chinese

%%3C6

UTF8 Japanese

%%3C7

UTF8 Korean

%%3C8

UTF8 Cyrillic

%%3C9

UTF8 Central European

%%3CA

Chapter 40   Bluetooth (For BT Scanner)

A. SET BT PARAMETER DEFAULT

BT Parameter Default.

%+$000C$

Scan: "BT Parameter Default -> Save Parameters"

B. BLUETOOTH PROFILE

When connected via Bluetooth, select one of the following
Bluetooth predefined profiles.

<SPP Master Mode>

%A1J3

Follow the steps below to setup the connection between scanner and cradle in SPP Master Mode.
1) Scan "**SPP Master Mode**".
2) Scan the Bluetooth **MAC address barcode** located on the bottom of cradle.
3) When the Bluetooth MAC address barcode is successfully scanned, the scanner sounds 3 short beeps with green LED flash once.
4) Wait approximately 20 seconds for BT pairing process.
5) When the connection is successful, the scanner sounds an ascending tone and with blue LED flashes slowly, and the cradle blue LED is continuous on.

SPP Slave Mode

%A1J2

Follow the steps below to setup the connection between scanner and host in SPP Slave Mode.
1) Scan "**SPP Slave Mode**".
2) Search the scanner by host. Enter the pin codes (default 00:00:00) to setup the pairing when prompt.
3) When paired, build up the connection by application program on host.
4) When the connection is successful, the scanner sounds an ascending tone with blue LED flashes slowly.

HID Slave Mode

%A1J0

Follow the steps below to setup the connection between scanner and host in HID Slave Mode.

1) Scan "**HID Slave Mode**".
2) Search the scanner by host. Enter the pin codes to setup the pairing when prompt. Go to NUMERIC KEYPAD TABLE in **Appendix E** to scan number 0-9 for pin codes.
3) When connection is successful, the scanner sounds an ascending tone with blue LED flashes slowly

C. OUT OF RANGE

When BT signal is out of transmission range, the BT connection will be lost. While "Out of Range" is enabled, the scanned data will be stored in out-of-range memory. All the stored data will be transmitted to host upon the BT is reconnected, and the data stored in out-of-range memory will be cleared. While "Out of Range" is disabled and the BT signal is out of transmission range, the scanned data will be discarded.

\<Enable\>

%A144

Disable

%A140

D. CRADLE ID VISIBILITY

\<Enable\>

%A280

Disable

%A281

E. AUTO RECONNECT

When scanner is back from out-of-BT-connection distance to BT-connection range, the scanner automatically resumes BT connection to host.

<Enable>

%A188

Disable

%A180

F.   BACK TO RANGE AND SEND DATA

When scanner is back to BT connection range, it automatically resumes connection and the stored data will be sent to host. Ensure the connection quality is secured and press trigger to start sending data by setting "Trigger to Send". The scanner automatically sends data upon the connection is resumed by setting "Auto Send".

<Trigger to Send>

%A4K0

Auto Send

%A4K4

G. VIRTUAL KEYBOARD

When connect to iOS in HID Slave Mode, double click trigger button to pop up/dismiss the virtual keyboard.

<Enable>

```
%A4O8
```

Disable

```
%A4O0
```

H. SLEEP MODE

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

1 min

%A272

10 min

%A273

<OFF >

%A270

I. BATCH MODE

ON

||||||||||||||||||||||||||||||||
%A1O8

<OFF>

||||||||||||||||||||||||||||||||
%A1O0

"*" indicates "Quick Setting Barcode".**

The function can be executed directly by scanning barcode instead of doing the general programming process.

***Delete Last Data

||||||||||||||||||||||||||||||||||||
%+$000O$
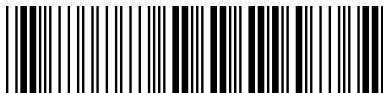
     ***Batch Data Read

||||||||||||||||||||||||||||||||||||
%+$000H$

***Batch Data Clear

||||||||||||||||||||||||||||||||||||
%+$000I$

J. FIRMWARE VERSION

Display the firmware version of scanner. Scan below barcodes directly without general programming process.

Scanner

```
%+$000K$
```

Cradle
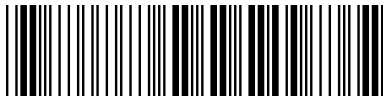
```
%+$000Y$
```

K. MAC ADDRESS

Display the firmware version of scanner. Scan below barcodes directly without general programming process.

Scanner MAC Address

%+$000L$

Cradle MAC Address

%+$001P$

Chapter 41   Data Editing

A. IDC COMPOSITE CODE

The scanned data can be edited by Intelligent Data Composer (IDC) as required output format. The data editing rules can be generated by IDC as a composite QR code. Simply scan this QR code to apply all editing rules to output data.

<Disable>

%%3A0

Enable

%%3A1

Chapter 42   Customer Define Strings

A. READ STRINGS

The customers can define their own strings and simply read the following barcodes to directly output the pre-defined strings. The strings should be pre-configured by software. 10 strings are available.

Read String 0

%%060

Read String 1

%%061

Read String 2

%%062

Read String 3

```
%%063
```

Read String 4

```
%%064
```

Read String 5

```
%%065
```

Read String 6

```
%%066
```

Read String 7

```
%%067
```

Read String 8

```
%%068
```

Read String 9

%%069

APPENDIX A: Default Parameters

Interface Selection	
USB HID Keyboard Mode	Disable
Reading Surface	General
RS232 Parameter	
BAUD Rate	115200
Data Bits	8 Data Bits
Stop Bits	1 Bit
Parity	None
Handshaking	RTS/CTS Disable
	ACK/NAK Disable
	XON/XOFF Disable
Keyboard Parameter	
Upper/Lower Case	Normal
Caps Lock Detection	Disable
Send Character By ALT Method	Disable
Select Numerical Pad	OFF
Output Characters	
Terminator	CR + LF
Time-out Between Characters	0 ms
Symbologies	
1D Symbology Selection	
UPC-A	ON
UPC-E	ON
EAN-13/JAN-13/ISBN-13	ON
EAN-8/JAN-8	ON
Code 39	ON
Code 128	ON
Codabar/NW7	ON
Interleaved 25	ON
Industrial 25	OFF

Matrix 25	OFF
CODE 93	OFF
CODE 11	OFF
China Post	OFF
MSI/PLESSEY	OFF
Telepen	OFF
GS1 DataBar Omnidirectional	OFF
GS2 DataBar Limited	OFF
GS2 DataBar Expanded	OFF
2D Symbology Selection	
Aztec	OFF
Data Matrix	ON
PDF417	ON
MicroPDF417 (Optional)	OFF
QR Code	ON
Micro QR Code	OFF
Han Xin Code (Optional)	OFF
Grid Matrix (Optional)	OFF
UPC/EAN/JAN	
UPCA=EAN13	Disable
ISBN-10	Disable
ISBN-13	Enable
ISSN	Disable
Auto discriminate Supplemental	Enable
Expand UPC-E	Disable
EAN8=EAN13	Disable
UCC Coupon Extended Code	Disable
GTIN Format	Disable
Supplemental	Not Transmit
Check Digit Transmission	
UPC-A Check Digit Transmission	ON
UPC-E Check Digit Transmission	ON
EAN-8 Check Digit Transmission	ON

EAN-13 Check Digit Transmission	ON
ISSN Check Transmission	OFF
Code 39	
Italian Pharmacy/Code 32	OFF
Check Digit Transmission	Not Calculate Check Digit
Output Start/Stop Character	Disable
Decode Asterisk	Disable
Code 128	
UCC/EAN-128	Disable
']C1' Code	Disable
Group Separators (GS)	Disable
Check Digit Transmission	Not Calculate Check Digit
Append FNC2	OFF
Interleaved 25	
Check Digit Transmission	Not Calculate Check Digit
Number of Character	Even
Brazilian Banking Code	Disable
Industrial 25	
IATA25	Disable
Check Digit Transmission	Not Calculate Check Digit
Matrix 25	
Check Digit Transmission	Not Calculate Check Digit
CODABAR/NW7	
Start/Stop Characters	OFF
Start/Stop Transmission Type	A/B/C/D Start
	A/B/C/D Stop
Code 93	
Check Digit Transmission	Calculate 2 Check Digits & Not Transmit
CODE 11	
Check Digit Transmission	Not Calculate Check Digit
MSI/PLESSEY	
Check Digit Transmission	Not Calculate Check Digit

Telepen	
Type of Code	Full ASCII Mode
Check Digit Transmission	Not Calculate Check Digit
GS1 DataBar	
GS1 Databar Omnidirectional	
Transmit Check Digit	Enable
Transmit Application ID	Enable
Transmit Symbology ID	Enable
GS1 Databar Limited	
Transmit Check Digit	Enable
Transmit Application ID	Enable
Transmit Symbology ID	Enable
GS1 Databar Expanded	
Transmit Symbology ID	Enable
Aztec	
Data Matrix	
GS1-Data Matrix	Disable
Code ID]d2	Disable
Group Separator (GS)	Disable
PDF417	
Micro PDF417 (Optional)	
QR Code	
GS1-QR Code	Disable
Code ID]Q3	Disable
Group Separator (GS)	Disable
Micro QR Code	
Han Xin (Optional)	
Grid Matrix (Optional)	
Code Length for All Symbologies	Variable
Language Selection	US English Keyboard
Bar Code ID	
Identifier Format	OFF
Code Identifiers-Default/AIM	Default

Accuracy	1 Time
Beep	
Beep Tone	High
Beep Duration	10=100ms
Silent Time Between Beeps	3=30ms
Good Read Beep	ON
Error Beep	ON
Power up Beep	ON
Configure Command Beep	ON
INDICATOR/AIMER/ILLUMINATION	
Indicator	Enable
Aimer	Enable
Illumination	Enable
Automatic illumination Brightness	Enable
Illumination Brightness	Default 50
Indicator After Good Read	Normal OFF
Indicator Flashing	Disable
Illumination Flashing After Good Read	Disable
Aimer Always ON	Disable
Image Type	
Inversed image	Disable
Mirrored image	Disable
Miscellaneous	
Autosense Sensitivity	85
Reverse Output Characters	Disable
Power Saving Mode	Disable
Time to Enter Power Saving	20=10min
Output Non-Printable Chars	Disable
Multi-Byte Character Output	None
Bluetooth (For BT Scanner)	
Bluetooth Profile	SPP Master Mode
Out of Range	Enable

Cradle ID Visibility	Enable
Auto Reconnect	Enable
Back to Range and Send Data	Trigger to Send
Virtual Keyboard	Enable
Sleep Mode	OFF
Batch Mode	OFF

APPENDIX B: Code Identifiers

1. Default Code Identifiers

Code ID	Bar Code Type
A	UPC-A
B	UPC-E
C	EAN8/JAN8
D	EAN13/JAN13
E	Code 39
F	Code 128
G	Interleaved 25
H	Industrial 25
I	Matrix 25
J	Codabar
K	Code 93
M	China Post
N	MSI/Plessey
T	Telepen
U	GS1-Databar Omnidirectional

V	GS1-Databar Limited
W	GS1-Databar Expanded
R	UCC/EAN128
XA	Aztec
XB	Aztec Mesas
XC	Data Matrix
XD	Maxicode
XE	Micro PDF417
XF	PDF417
XG	QR Code
XH	Micro QR Code
XI	Han Xin Code

2. AIM Code Identifiers

Each AIM Code Identifier contains the
three-character string]cm where:
] = Flag Character (ASCII 93)
c = Code Character
m = Modifier Character

AIM Code Character

Code Character	Bar Code Type
A	Code 39, Code 39 Full ASCII, Code 32
C	Code 128
d	Data Matrix
E	UPC/EAN
e	RSS Family
F	Codabar
G	Code 93
H	Code 11
I	Interleaved 2 of 5
L	PDF417, Micro PDF417, Micro PDF417
M	MSI
Q	QR Code
S	Discrete 2 of 5, IATA 2 of 5
X	Bookland EAN, Trioptic Code 39, US Postnet, US Planet, UK Postal, Japan Postal, Australian Postal, Dutch Postal

APPENDIX C: Decimal Value Table

0

1

2

3

4

5

6

7

8

9

APPENDIX D: ASCII Characters

NULL

```
||||||| ||||| |||| ||||
```
00

SOH

```
||||||| ||||| |||| |||
```
01

STX

```
||||| ||||| |||| ||||
```
02

ETX

```
||||| ||||| |||| ||||
```
03

EOT

```
||||||| ||||| |||| ||
```
04

ENQ

```
||||| ||||| |||| |||
```
05

ACK

```
||||| ||||| ||| |||
```
06

BEL

```
||||||| ||||| |||| ||||
```
07

BS

```
||||||| ||||| |||| ||||
```
08

HT

09

LF

0A

VT

0B

FF

0C

CR

0D

SO

0E

SI

0F

DLE

10

DC1

11

DC2

12

DC3

13

DC4

14

NAK

15

SYN

16

ETB

17

CAN

18

EM

19

SUB

1A

ESC

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

1B

FS

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

1C

GS

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

1D

RS

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

1E

US

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

1F

SPACE

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

20

!

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

21

"

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

22

#

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

23

$

‖‖‖‖‖ ‖‖‖ ‖‖ ‖‖‖
24

%

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25

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26

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27

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28

)

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29

*

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2A

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2B

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2C

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2D

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2E

/

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2F

0

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30

1

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31

2

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32

3

‖‖‖‖‖ ‖‖‖‖ ‖‖‖ ‖‖‖

33

4

‖‖‖‖‖ ‖‖‖‖ ‖‖ ‖‖‖

34

5

‖‖‖‖‖ ‖‖‖‖ ‖‖ ‖‖‖

35

6

36

7

37

8

38

9

39

:

3A

;

3B

<

3C

=

3D

>

3E

?

3F

@

40

A

41

B

42

C

43

D

44

E

45

F

46

G

47

H

48

I

49

J

4A

K

4B

L

4C

M

4D

N

4E

O

4F

P

50

Q

|||||||||||||||||||||||
51

R

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52

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53

T

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54

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55

V

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56

W

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57

X

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58

Y

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59

Z

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5A

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5C

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5D

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5F

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60

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61

b

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62

c

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63

d

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64

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67

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68

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69

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6A

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6C

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6D

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6E

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6F

p

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72

s

73

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74

u

75

v

76

w

77

x

78

y

79

z

7A

{

7B

|

7C

}

7D

~

7E

DEL

7F

APPENDIX E: Numeric Keypad Table

The table is for Bluetooth PIN code input.

0	‖‖‖‖‖‖	1	‖‖‖‖‖‖
2	‖‖‖‖‖‖	3	‖‖‖‖‖‖
4	‖‖‖‖‖‖	5	‖‖‖‖‖‖
6	‖‖‖‖‖‖	7	‖‖‖‖‖‖
8	‖‖‖‖‖‖	9	‖‖‖‖‖‖
Enter	‖‖‖‖‖‖		

Start Configuration

%$+/3

Save Parameters

%$+/0

Abort Configuration

%$+/6

Set All Default

%$+/2

Version Information

%$+/5