Programming Menu

V3.9

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Chapter 1 Description

1.1 General

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


LEGISLATION AND WEEE SYMBOL

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

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

The Decoder is an advanced and versatile decoding facility for barcoding systems. It works with variety of bar code types, reading devices, and computer interfaces. It discriminates about twenty different symbologies automatically.

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

1.3 Codes Read

- Codes Read

1.4 Installation

Unpacking -
Remove the scanner from its packing and check it for damage. If the scanner was defected in transit, please contact your vendor immediately. Be sure that you keep the packing with all accessories contains in the package for your returning of service.

Connecting the scanner -
Keyboard wedge / RS-232C / USB:
Connect the 10-pins RS-45 male connector into the bottom of the scanner and you will hear a “click” when the connection is made.
Power supply for RS-232C scanner -
There are 3 ways to supplying the power, use external +5V power supply, use optional power cable (KBDC) which taking the power from KB wedge or if the host supports +5V power from pin 9.

Installing the scanner to the Host System -
1. Turn off the host system.
2. Connect the power if needed.
3. Connect to the proper port on the host system.
4. Turn on the host system.

Switching cable -
Before removing the cable from the scanner, it is recommended that the power on the host system is off and the power supply has been disconnected from unit.

1. Find the small "Pin-hole" on the bottom of the unit.
2. Use a bended regular paperclip and insert the tip into the hole.
3. You will head a "click", then gentle on the strain-relief of the cable and it will slide out of the scanner.

SG/LG Series

SD Series
### 1.5 Pin Assignment

#### A> Input Port for Mini Decoder
**DB 9 Male**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Wand / Slot Reader</th>
<th>CCD / Laser Scanner</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N.C.</td>
<td>S.O.S.</td>
</tr>
<tr>
<td>2</td>
<td>DATA</td>
<td>DATA</td>
</tr>
<tr>
<td>3</td>
<td>N.C.</td>
<td>N.C.</td>
</tr>
<tr>
<td>4</td>
<td>N.C.</td>
<td>N.C.</td>
</tr>
<tr>
<td>5</td>
<td>N.C.</td>
<td>TRIGGER</td>
</tr>
<tr>
<td>6</td>
<td>N.C.</td>
<td>P. E.</td>
</tr>
<tr>
<td>7</td>
<td>GND</td>
<td>GND</td>
</tr>
<tr>
<td>8</td>
<td>SHIELD</td>
<td>SHIELD</td>
</tr>
<tr>
<td>9</td>
<td>+5V</td>
<td>+5V</td>
</tr>
</tbody>
</table>

![DB 9 Male Diagram]

#### B> Output Port

1. **PC Keyboard Output**

**DIN 5 MALE**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HOST CLK</td>
<td>1</td>
<td>KB CLK</td>
</tr>
<tr>
<td>2</td>
<td>HOST DATA</td>
<td>2</td>
<td>KB DATA</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td>4</td>
<td>GND</td>
</tr>
<tr>
<td>5</td>
<td>Vcc(+5V)</td>
<td>5</td>
<td>Vcc(+5V)</td>
</tr>
</tbody>
</table>

![DIN 5 Male Diagram]

**DIN 5 FEMALE**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>KB CL k</td>
</tr>
<tr>
<td>2</td>
<td>KB DATA</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
</tr>
<tr>
<td>5</td>
<td>Vcc(+5V)</td>
</tr>
</tbody>
</table>

![DIN 5 Female Diagram]

**MiniDIN 6 MALE**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HOST DATA</td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
</tr>
<tr>
<td>4</td>
<td>Vcc</td>
</tr>
<tr>
<td>5</td>
<td>HOST CLK</td>
</tr>
</tbody>
</table>

![MiniDIN 6 Male Diagram]

**MiniDIN 6 FEMALE**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>KB DATA</td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
</tr>
<tr>
<td>4</td>
<td>Vcc</td>
</tr>
<tr>
<td>5</td>
<td>KB CLK</td>
</tr>
</tbody>
</table>

![MiniDIN 6 Female Diagram]
2. **RS-232 Output**
   **DB 9 Female**
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>TXD</td>
</tr>
<tr>
<td>3</td>
<td>RXD</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
</tr>
<tr>
<td>7</td>
<td>CTS</td>
</tr>
<tr>
<td>8</td>
<td>RTS</td>
</tr>
</tbody>
</table>
   **Power Lead** Vcc (+5V)

3. **WAND Emulation Output**
   **DB 9 Female**
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>DATA</td>
</tr>
<tr>
<td>7</td>
<td>GND</td>
</tr>
<tr>
<td>9</td>
<td>Vcc (+5V)</td>
</tr>
</tbody>
</table>

4. **ADB Interface**
   **MiniDIN 4 MALE**
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ADB</td>
</tr>
<tr>
<td>3</td>
<td>Vcc</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
</tr>
</tbody>
</table>
   **MiniDIN 4 FEMALE**
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ADB</td>
</tr>
<tr>
<td>3</td>
<td>Vcc</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
</tr>
</tbody>
</table>

5. **NEC 9801 Interface**
   **MiniDIN 8 MALE**
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RST</td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>HOST RDY</td>
</tr>
<tr>
<td>4</td>
<td>HOST DATA</td>
</tr>
<tr>
<td>5</td>
<td>RTY</td>
</tr>
<tr>
<td>8</td>
<td>+5V</td>
</tr>
</tbody>
</table>
   **MiniDIN 8 FEMALE**
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RST</td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
</tr>
<tr>
<td>4</td>
<td>KB RDY</td>
</tr>
<tr>
<td>5</td>
<td>KB DATA</td>
</tr>
<tr>
<td>8</td>
<td>RTY</td>
</tr>
<tr>
<td>6</td>
<td>+5V</td>
</tr>
</tbody>
</table>
Chapter 2 Configuration - General

2.1 Flow Chart
2.2 Loop of Programming

The philosophy of programming parameters has been shown on the flow chart of 2.1. Basically user should

1. Scan Start of Configuration.
2. Scan all necessary labels for parameters that meet applications.
3. Scan End of Configuration to end the programming.
4. To permanently save the settings you programmed, just scan label for Save Parameters.
5. To go back to the Default Settings, just scan label for Set All Defaults.

2.3 Factory Default Settings

The factory default settings are shown with <> and bold in the following sections. You can make your own settings by following the procedures in this manual. If you want to save the settings permanently, you should scan the label of “Save Parameters” in chapter 2.4, otherwise the settings will not be saved after the decoder power is off, and all settings will go back to previous settings.

By scanning “Set All Default” label, the settings will go back to the factory default settings.
2.4 Main Page of Configuration

Save Parameters
The parameter settings will be saved permanently.

Recall Stored Parameters
Replace the current parameters by the parameters you saved last time.

Set All Defaults
Set all the parameters to the factory default settings.

Abort Configuration
Terminate current programming status.

Version Information
Display the decoder version information and date code.
Chapter 3 Interface and Reading Mode Selection

3.1 Interface Selection

<Keyboard Mode>

RS232 Mode

WAND Emulation

USB Mode
3.2 Reading Mode Selection

<Good Read OFF>

Trigger ON/OFF

Continuous/Trigger OFF

Testing

Continuous/Auto Power On

Flash

Flash/Auto Power On

Reserved1

Auto Sense(Option)

Reserved3

Reserved4

Reserved5
Ch.4 Communication Parameters

4.1 RS232 Communication Parameters

A> Set Up BAUD Rate

<table>
<thead>
<tr>
<th>BAUD Rate</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200</td>
<td><img src="code" alt="1200" /></td>
</tr>
<tr>
<td>2400</td>
<td><img src="code" alt="2400" /></td>
</tr>
<tr>
<td>4800</td>
<td><img src="code" alt="4800" /></td>
</tr>
<tr>
<td>71200</td>
<td><img src="code" alt="&lt;9600&gt;" /></td>
</tr>
<tr>
<td>19200</td>
<td><img src="code" alt="19200" /></td>
</tr>
<tr>
<td>38400</td>
<td><img src="code" alt="38400" /></td>
</tr>
</tbody>
</table>

B> Set Up Data Bits

<table>
<thead>
<tr>
<th>Data Bits</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Data Bits</td>
<td><img src="code" alt="7 Data Bits" /></td>
</tr>
<tr>
<td>&lt;8 Data Bits&gt;</td>
<td><img src="code" alt="&lt;8 Data Bits&gt;" /></td>
</tr>
</tbody>
</table>

C> Set Up Stop Bits

<table>
<thead>
<tr>
<th>Stop Bits</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 Bit&gt;</td>
<td><img src="code" alt="&lt;1 Bit&gt;" /></td>
</tr>
<tr>
<td>2 Bits</td>
<td><img src="code" alt="2 Bits" /></td>
</tr>
</tbody>
</table>
D> Set Up Parity

Set Up Parity

<None>

Even

Odd

Mark

Space

E  Handshaking

RTS/CTS Enable

<RTS/CTS Disable>

ACK/NAK Enable

<XON/XOFF Disable>

XON/XOFF Enable

<ACK/NAK Disable>

<ACK/NACK Disable>

<ACK/NACK Disable>
4.2 Keyboard Wedge Mode Parameters

A > Terminal Type

<IBM PC/AT, PS/2>

IBM PC/XT

IBM PS/2 25, 30

NEC 9800

Apple Desktop Bus (ADB)

IBM 5550

IBM 122 Key (1)

IBM 102 Key

IBM 122 Key (2)

Reserved 1

Reserved 2

Reserved 3

Reserved 4

Reserved 5
B> Upper/Lower Case

<No Change>

Upper Case

Lower Case

C> Caps Lock Detection

Enable

<Disable>

D> Send Character by ALT Method

Enable

<Disable>

E> Select Numerical Pad

ON

<OFF>
Output Characters Parameters

A> Select Terminator

<CR+LF>

\%7S2+
None

CR

\%7S0+
LF

\%7S1+
Space

\%7S4+
HT(TAB)

\%7S3+
STX-ETX

\%7S5+
B> Time-out Between Characters

<0 ms>

5 ms

10 ms

25 ms

50 ms

100 ms

200 ms

300 ms
4.4 Wand Emulation Mode Parameters

A> TTL Level Representation

<Bar Equals High>

<Bar Equals Low>

B> Scan Speed Selection

<Fast>

Slow

C> Output Format Selection

<Output as Code 39>

Output as Code 39
Full ASCII

Output as Original
Code Format
Ch. 5  Bar Codes & Others

5.1 Symbologies Selection

UPC-A <ON>

OFF

UPC-E <ON>

OFF

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

OFF

EAN-8/JAN-8 <ON>

OFF

CODE 39 <ON>

OFF

CODE 128 <ON>

OFF

CODABAR/NW7 <ON>

OFF
Interleave 25 <ON> <OFF>

Industrial 25 ON <OFF>

Matrix 25 ON <OFF>

CODE 93 ON <OFF>

CODE 11 ON <OFF>

China Postage ON <OFF>

MSI/PLESSEY ON <OFF>
Code 2 of 6ON

LCD25 ON

Telepen ON

Reserved5 ON

Reserved6 ON
GS1 DataBar Omnidirectional ON

GS1 DataBar Limited ON

GS1 DataBar Expanded ON

Select All Bar Codes
5.2 UPC/EAN1/JAN Parameters

A Reading Type

UPC=A=13 ON

ISBN-1C Enable

ISSN Enable

Decode with Supplement

Expand UPC-E Enable

EAN8=EAN13 Enable

GTIN Format Enable

UPC:A=13<OFF>

ISBN-13 <Enable>

ISSN <Disable>

<Auto discriminate Supplement>

Expand UPC-E <Disable>

EAN8=EAN13 <Disable>

GTIN Format <Disable>
**Supplemental Set Up**

<Not Transmit>

- Transmit 2 Code
  - %B31
- Transmit 5 Code
  - %B32

**Check Digit Transmission**

- **UPC-A Check Digit Transmission** <ON>
  - %AI2
- **UPC-E Check Digit Transmission** <ON>
  - %BI2
- **EAN-8 Check Digit Transmission** <ON>
  - %A88
- **EAN-13 Check Digit Transmission** <ON>
  - %AH1
- **ISSN Check Digit Transmission** <ON>
  - %BK4
5.3 Code 39 Parameters

A> Type of Code

<Standard>

Full ASCII

Italian Pharmacy/Code 32

<OFF>

Italian Pharmacy/Code 32 ON

B> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

C> Output Start/Stop Character

Enable

<Disable>
**D> Decode Asterisk**

Enable

< Disable>

**E> Set Up Code Length**

To set the fixed length:
1. Scan the “Begin” label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set.
Repeat the steps 1 - 3 to set additional lengths.

<Variable>

**Fix Length (2 Sets Available)**

1. 1st Set Begin
2. Decimal Value (Appendix A)
3. 1st Set Complete

1. 2nd Set Begin
2. Decimal Value (Appendix A)
3. 2nd Set Complete

**Minimum Length**

1. Begin
2. Decimal Value (Appendix A)
3. Complete
### 5.4 Code 128 Parameters

#### A> Reading Type

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCC/E1-128 Enable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;Enable C1’Code Format&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disable C1’Code Format</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disable Code128 Group Separators(GS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disable Code128 Group Separators(GS)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### B> Check Digit Transmission

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Not Calculate Check Digit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculate Check Digit &amp; Transmit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### C> Append FNC2

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;OFF&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
D> Set Up Code Length

To set the fixed length
1. Scan the “Begin” label of the desired set.
2. Go to the Decimal Value Tables in Appendix A for the scan label(s) that represents the length to be read.
3. Scan the “Complete“ label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin
2. Decimal Value
(Appendix A)
3. 1st Set Complete

1. 2nd Set Begin
2. Decimal Value
(Appendix A)
3. 2nd Set Complete

Minimum Length
1. Begin
2. Decimal Value
(Appendix A)
3. Complete
5.5 Interleave 25 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

B  Set Up Number of Character

<Even>

Odd

C  Brazilian Banking Code

<Disable>

Enable
D> Set 8p Code Length

To set the fixed length:
1. Scan the “Begin” label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

Fix Length (2 Sets Available>
1.1st Set Beg

1.2nd Set Begin

Minimum Length
1. Begin

2. Decimal Value (Appendix A)

3. 1st Set Complete

3. 2nd Set Complete

3. Complete
5.6 Industrial 25 Parameters

A> Reading type

IATA25 Enable

B Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

C> Set Up Code Length

To set the fixed length
1. Scan the “Begin” label of the desired set.
2. Go the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete“ label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
<Variable>

Fix Length (2 Sets Available>

1. 1st Set Begin

2. Decimal Value (Appendix A)

3. 1st Set Complete

1. 2nd Set Begin

2. Decimal Value (Appendix A)

3. 2nd Set Complete

Minimum Length

1. Begin

2. Decimal Value (Appendix A)

3. Complete
5.7 Matrix 25 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

B> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin 2. Decimal Value (Appendix A)
3. 1st Set Complete

1. 2nd Set Begin 2. Decimal Value (Appendix A)
3. 2nd Set Complete

Minimum Length
1. Begin 2. Decimal Value (Appendix A)
3. Complete
5.8 CODABAR/NW7 Parameters

A> Set Up Start/Stop Characters Upon Transmission

ON

\[\%C J H1\]

<OFF>

\[\%DJ H0\]

B> Transmission Type of Start/Stop

\(<A/B/C/D> <Start>\)

A Start

\[\%4 V F\]

B Start

\[\%4 V2\]

C Start

\[\%4 V4\]

D Start

\[\%4 V8\]

\(<A/B/C/D> <Stop>\)

A Stop

\[\%4 FF\]

B Stop

\[\%4 F1\]

C Stop

\[\%4 F2\]

D Stop

\[\%4 F8\]
C> Set Up Code Length

To set the fixed length:
1. Scan the “Begin” label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin 2. Decimal Value 3. 1st Set Complete
   (Appendix A)

1. 2nd Set Begin 2. Decimal Value 3. 2nd Set Complete
   (Appendix A)

Minimum Length
   (Appendix A)
5.9 Code 93 Parameters

A> Check Digit Transmission

<Calculate Check 2 Digits & Not Transmit>

B> Set Up Code Length

To set the fixed length:
1. Scan the “Begin” label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
Fix Length (2 Sets Available)
1. 1st Set Begin
2. Decimal Value (Appendix A)
3. 1st Set Complete

1. 2nd Set Begin
2. Decimal Value (Appendix A)
3. 2nd Set Complete

Minimum Length
1. Begin
2. Decimal Value (Appendix A)
3. Complete
5.10 Code 11 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check 1 Digit & Transmit

Calculate Check 2 Digits & Not Transmit

Calculate Check 2 Digits & Not Transmit

B> Set Up Code Length

To set the fixed length:
1. Scan the “Begin” label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
Fix Length (2 Sets Available)
1. 1st Set Begin
2. Decimal Value (Appendix A)
3. 1st Set Complete

1. 2nd Set Begin
2. Decimal Value (Appendix A)
3. 2nd Set Complete

Minimum Length
1. Begin
2. Decimal Value (Appendix A)
3. Complete
5.11 MSI/PLESSEY Code Parameters

A> Check Digit Transmission

Do Not Calculate Check Digit

Calculate Check Digit & Transmit

<Calculate Check Digit & Not Transmit>

B> Set Up Code Length

To set the fixed length:
1. Scan the “Begin” label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
Fix Length (2 Sets Available)

1. 1st Set Begin

2. Decimal Value
   (Appendix A)

3. 1st Set Complete

1. 2nd Set Begin

2. Decimal Value
   (Appendix A)

3. 2nd Set Complete

Minimum Length

1. Begin

2. Decimal Value
   (Appendix A)

3. Complete
5.12 Code 2 of 6 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

B> Set Up Code Length

To set the fixed length:
1. Scan the “Begin” label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete“ label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
Variable

Fix Length (2 Sets Available)
1. 1st Set Begin
2. Decimal Value (Appendix A)
3. 1st Set Complete

1. 2nd Set Begin
2. Decimal Value (Appendix A)
3. 2nd Set Complete

Minimum Length
1. Begin
2. Decimal Value (Appendix A)
3. Complete
5.13 LCD25 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

B> Setup Code length

To set the fixed length:
1. Scan the “Begin” label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin
2. Decimal Value (Appendix A)
3. 1st Set Complete

Minimum Length
1. Begin
2. Decimal Value (Appendix A)
3. Complete
5.14 Telepen Parameters

A> Type of Code

<Full ASCII Mode>

Compressed Numeric Mode

B> Check Digit Transmission

Do Not Calculate Check Digit

Calculate Check Digit & Transmit

<Calculate Check Digit & Not Transmit>

C> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
Fix Length (2 Sets Available)
1. 1st Set Begin

2. Decimal Value
   (Appendix A)

3. 1st Set Complete

1. 2nd Set Begin

2. Decimal Value
   (Appendix A)

3. 2nd Set Complete

Minimum Length
1. Begin

2. Decimal Value
   (Appendix A)

3. Complete
5.15 GS1 Databar

A> GS1 DataBar Omnidirectional

<Transmit Check Digit>

Don’t Transmit Check Digit

<Transmit Application ID>

Don’t Transmit Application ID

Transmit Symbology ID

<Don’t Transmit Symbology ID>

B> GS1 DataBar Limited Parameters

<Transmit Check Digit>

Don’t Transmit Check Digit
<Transmit Application ID>

Don’t Transmit Application ID

Transmit Symbology ID

<Don’t Transmit Symbology ID>

C> GS1 DataBar Expanded Parameters

Transmit Symbology ID

<Don’t Transmit Symbology ID>
## 6.1 Language Selection

<table>
<thead>
<tr>
<th>Language</th>
<th>Code</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;US English&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>French</td>
<td></td>
<td></td>
</tr>
<tr>
<td>German</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swedish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hungarian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.2 Bar Code ID

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

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

<table>
<thead>
<tr>
<th>Code Type</th>
<th>ID</th>
<th>Code Type</th>
<th>ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPC- A</td>
<td>A</td>
<td>UPC-E</td>
<td>B</td>
</tr>
<tr>
<td>EAN-8</td>
<td>C</td>
<td>EAN-13</td>
<td>D</td>
</tr>
<tr>
<td>CODE 39</td>
<td>E</td>
<td>CODE 128</td>
<td>F</td>
</tr>
<tr>
<td>Interleave 25</td>
<td>G</td>
<td>Industrial 25</td>
<td>H</td>
</tr>
<tr>
<td>Matrix 25</td>
<td>I</td>
<td>Codabar/NW7</td>
<td>J</td>
</tr>
<tr>
<td>CODE 93</td>
<td>K</td>
<td>CODE 11</td>
<td>L</td>
</tr>
<tr>
<td>China Postage</td>
<td>M</td>
<td>MSI/PLESSEY</td>
<td>N</td>
</tr>
<tr>
<td>Code 2 of 6</td>
<td>P</td>
<td>LCD25</td>
<td>Q</td>
</tr>
<tr>
<td>Telepen</td>
<td>T</td>
<td>GS1 DataBar</td>
<td>U</td>
</tr>
<tr>
<td>GS1 DataBar</td>
<td>V</td>
<td>Omnidirectional</td>
<td></td>
</tr>
<tr>
<td>Limited</td>
<td></td>
<td>GS1 DataBar</td>
<td>W</td>
</tr>
</tbody>
</table>

User Define Code ID

To set the code ID:
1. Scan the symbologies label.
2. Go to the ASCII Tables in Appendix B, scan label that represents the desired code ID.

Note:
User define code ID will override default value. Program will not check the conflict. It is possible to have more than two symbologies which have same code ID.
6.3 Reading Level

Bar Equals High

6.4 Accuracy

<1 Time>

2 Times (V-1040/LG700)

3 Times

4 Times

6.5 Buzzer Beep Tone

<High>

Medium

Low

Off
6.6 Sensitivity of Continuous Reading Mode

**A> Quick Setting:**

<Fast>

Slow

**B> Same Code Delay Reading Interval**

Following code sequences represent the length of time before a barcode can be rescanned at continuous and flash reading mode. The value can be defined from 1-50 and they represent 100ms to 5 seconds in 100ms interval. Default value is 3 (0.3 seconds).

**To setup same code delay reading interval:**

1. Scan the "Begin" label
2. Go the Decimal Value Tables in Appendix A, Scan label(s), that represents the same code delay reading interval. They are ranged form 1-50. One step is represented 0.1 second. So the interval is from 0.1 to 5 seconds.
3. Scan the "Complete" label

**Repeat the steps 1-3 to set time out of same symbol**

1. Begin
2. Decimal Value (1-50) (Appendix A)
3. Complete
6.7 Reverse Output Characters

<Disable>

Enable

6.8 Setup Deletion

To setup the deletion of output characters:

1. Scan the label of the desired set below.
2. Scan the label of the desired symbology.
3. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the desired position to be deleted.
4. Scan the "Complete" label of "Character Position to be Deleted".
5. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the number of characters to be deleted.
6. Scan the "Complete" label of "Number of Characters to be Deleted".

Repeat the steps 1 – 6 to set additional deletion.

A> Select Deletion Set Number

1. 1st Set
2. 2nd Set
3. 3rd Set
4. 4th Set
5. 5th Set
6. 6th Set
<table>
<thead>
<tr>
<th>Symbologies Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UPC-A</strong></td>
</tr>
<tr>
<td><img src="image" alt="UPC-A" /> %81A+</td>
</tr>
<tr>
<td><strong>UPC-E</strong></td>
</tr>
<tr>
<td><img src="image" alt="UPC-E" /> %81B+</td>
</tr>
<tr>
<td><strong>EAN-13/JAN-13/ISBN-13</strong></td>
</tr>
<tr>
<td><img src="image" alt="EAN-13/JAN-13/ISBN-13" /> %81Y+</td>
</tr>
<tr>
<td><strong>EAN-8/JAN-8</strong></td>
</tr>
<tr>
<td><img src="image" alt="EAN-8/JAN-8" /> %81Z+</td>
</tr>
<tr>
<td><strong>CODE 39</strong></td>
</tr>
<tr>
<td><img src="image" alt="CODE 39" /> %81E+</td>
</tr>
<tr>
<td><strong>CODE 128</strong></td>
</tr>
<tr>
<td><img src="image" alt="CODE 128" /> %81F+</td>
</tr>
<tr>
<td><strong>CODABAR/N97</strong></td>
</tr>
<tr>
<td><img src="image" alt="CODABAR/N97" /> %81J+</td>
</tr>
<tr>
<td><strong>Interleave 25</strong></td>
</tr>
<tr>
<td><img src="image" alt="Interleave 25" /> %81G+</td>
</tr>
<tr>
<td><strong>Industrial 25</strong></td>
</tr>
<tr>
<td><img src="image" alt="Industrial 25" /> %81H+</td>
</tr>
<tr>
<td><strong>Matrix 25</strong></td>
</tr>
<tr>
<td><img src="image" alt="Matrix 25" /> %81I+</td>
</tr>
<tr>
<td><strong>CODE 93</strong></td>
</tr>
<tr>
<td><img src="image" alt="CODE 93" /> %81K+</td>
</tr>
<tr>
<td><strong>CODE 11</strong></td>
</tr>
<tr>
<td><img src="image" alt="CODE 11" /> %81L+</td>
</tr>
<tr>
<td><strong>China Postage</strong></td>
</tr>
<tr>
<td><img src="image" alt="China Postage" /> %81M+</td>
</tr>
<tr>
<td><strong>MSI/PLESSEY</strong></td>
</tr>
<tr>
<td><img src="image" alt="MSI/PLESSEY" /> %81N+</td>
</tr>
</tbody>
</table>
Telepen

GS1 DataBar Omnidirectional

GS1 DataBar Expanded

None

Code 2 of 6

% 81P+

LCD25

% 81Q+

GS1 DataBar Limited

% 81V+

All Codes

% 81S+

C> Character Position to be Deleted

1. Decimal Value (Appendix A)
2. Complete

D> Number of Characters to be Deleted

1. Decimal Value (Appendix A)
2. Complete
6.9 Setup Insertion

To setup the insertion of output characters

1. Scan the label of the desired set.
2. Scan the label of the desired symbology.
3. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the desired position to be inserted.
4. Scan the “Complete” label of “Character Position to be Inserted”.
5. Go to the ASCII Tables in Appendix B or Function Key Tables in Appendix C, scan label(s) that represents the desired characters to be inserted.
6. Scan the “Complete” label of “Characters to be inserted”.

Repeat the steps 1 - 6 to set additional insertion.

A> Select Insertion Set Number

1. 1st Set

2. 2nd Set

3. 3rd Set

4. 4th Set

5. 5th Set

6. 6th Set
B> Symbologies Selection

UPC-A


CODE 39

CODABAR/NW7

Industrial 25

CODE 93

China Postage

UPC-E

EAN-8/JAN-8

CODE 128

Interleave 25

Matrix 25

CODE 11

MSI/PLESSEY
Telepen
\%51T+

GS1 DataBar Omnidirectional
\%51U+

GS1 DataBar Expanded
\%51W+

LCD255
\%51Q+

GS1 DataBar Limited
\%51V+

All Codes
\%51S+

None
\%514+

C> Character Position to be Inserted
1. Decimal Value (Appendix A)
2. Complete

D> Characters to be Inserted
1. ASCII Table (Appendix B)
2. Complete
6.10 Scanning Line Selection for Multi Parallel lines modes

<Double Click to Interchange Multi Parallel / Single line>

Multiple Parallel Lines Only

Single Line Only
Ch7. Bluetooth Configuration

BT Parameter Set Default

7.1 Scanner Mode

A> Setup SPP Master Mode

<SPP Master Mode>

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

B> Setup SPP Slave Mode

SPP Slave Mode

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

66
C> Setup HID Slave Mode

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

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

7.2 Out of Range

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

<Out of Range Enable>

Out of Range Disable
7.3 Sleep Mode

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

Sleep Mode 1 min. ON

Sleep Mode 10 min. ON

<Sleep Mode OFF>

7.4 Batch Mode

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

Batch Mode On

< Batch Mode Off>

*** Batch Data Read

*** Batch Data Clear

***Delete Last Data
7.5 Firmware Version

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

**Scanner Firmware Version**

**Cradle Firmware Version**

**Scanner MAC Address**

**Cradle MAC Address**
# Appendix A  Decimal Value Table

<table>
<thead>
<tr>
<th>Decimal Value</th>
<th>Bar Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
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<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix B  ASCII Table

<table>
<thead>
<tr>
<th>Code</th>
<th>Character</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>NULL</td>
</tr>
<tr>
<td>01</td>
<td>SOH</td>
</tr>
<tr>
<td>02</td>
<td>STX</td>
</tr>
<tr>
<td>03</td>
<td>ETX</td>
</tr>
<tr>
<td>04</td>
<td>EOT</td>
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<td>05</td>
<td>ENQ</td>
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<td>ACK</td>
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<td>08</td>
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<td>14</td>
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<tr>
<td>1E</td>
<td>RS</td>
</tr>
<tr>
<td>1F</td>
<td>US</td>
</tr>
</tbody>
</table>
# Appendix C Function Key Table

<table>
<thead>
<tr>
<th>Function Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>C0</td>
</tr>
<tr>
<td>F2</td>
<td>C1</td>
</tr>
<tr>
<td>F3</td>
<td>C2</td>
</tr>
<tr>
<td>F4</td>
<td>C3</td>
</tr>
<tr>
<td>F5</td>
<td>C4</td>
</tr>
<tr>
<td>F6</td>
<td>C5</td>
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<td>F7</td>
<td>C6</td>
</tr>
<tr>
<td>F8</td>
<td>C7</td>
</tr>
<tr>
<td>F9</td>
<td>C8</td>
</tr>
<tr>
<td>F10</td>
<td>C9</td>
</tr>
<tr>
<td>F11</td>
<td>CA</td>
</tr>
<tr>
<td>F12</td>
<td>CB</td>
</tr>
<tr>
<td>Insert</td>
<td>CC</td>
</tr>
<tr>
<td>Delete</td>
<td>CD</td>
</tr>
<tr>
<td>Home</td>
<td>CE</td>
</tr>
<tr>
<td>Page Up</td>
<td>CF</td>
</tr>
<tr>
<td>Page Down</td>
<td>D0</td>
</tr>
<tr>
<td>End</td>
<td>D1</td>
</tr>
<tr>
<td>Left</td>
<td>D2</td>
</tr>
<tr>
<td>Right</td>
<td>D3</td>
</tr>
<tr>
<td>Up</td>
<td>D4</td>
</tr>
<tr>
<td>Down</td>
<td>D5</td>
</tr>
<tr>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix D  Decimal Value Table II

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Enter</td>
<td></td>
</tr>
</tbody>
</table>
All above programming are subject to change without notice.