

# BAR CODE

PROGRAMMING MENU





## **Programming Menu**

V3.9

### **Notice**

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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



The CE mark as shown here indicates this product had been tested in accordance with the procedures given in European Council Directive 2004/108/EC and confirmed to comply with the Europe Standard EN55022:2006:Class B, EN 55024:1998+A1:2001+A2:2003, IEC61000-3-2:2006, IEC61000-3-3:1995+A1:2005, IEC61000-4-2:2001, IEC61000-4-3:2006, IEC61000-4-4:2004, IEC61000-4-5:2006, IEC61000-4-6:2001, IEC61000-4-8:2001, IEC61000-4-11:2004.

## 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

All UPC/EAN/JAN, Code 39, Code 39 Full ASCII, Code 128, Interleave 25, Industrial 25, Matrix 25, CODABAR/NW7, Code 11, MSI/PLESSEY, Code 93, China Postage, Code32 / Italian Pharmacy, others available upon request.

## 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.

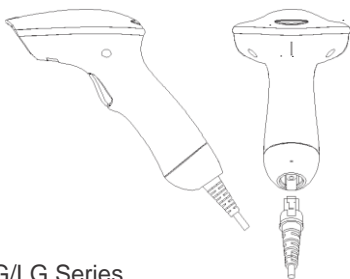
### **Installing the scanner to the Host System -**

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.

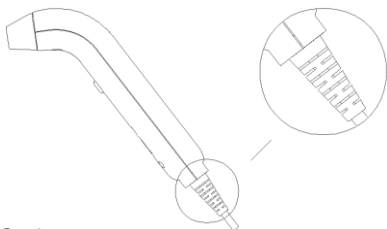
### **Switching cable -**

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

Pin No.	Wand / Slot Reader	CCD / Laser Scanner
1	N.C.	S.O.S.
2	DATA	DATA
3	N.C.	N.C.
4	N.C.	N.C.
5	N.C.	TRIGGER
6	N.C.	P. E.
7	GND	GND
8	SHIELD	SHIELD
9	+5V	+5V

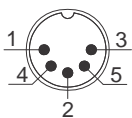


### B> Output Port

#### 1. PC Keyboard Output

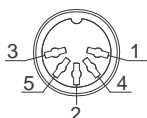
##### DIN 5 MALE

Pin No.	Function
1	HOST CLK
2	HOST DATA
4	GND
5	Vcc(+5V)



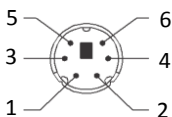
##### DIN 5 FEMALE

Pin No.	Function
1	KB CLK
2	KB DATA
4	GND
5	Vcc(+5V)



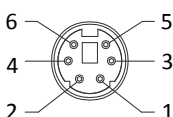
##### MiniDIN 6 MALE

Pin No.	Function
1	HOST DATA
3	GND
4	Vcc
5	HOST CLK



##### MiniDIN 6 FEMALE

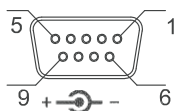
Pin No.	Function
1	KB DATA
3	GND
4	Vcc
5	KB CLK



**2. RS-232 Output  
DB 9 Female**

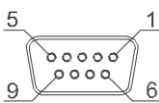
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS

Power Lead Vcc(+5V)



**3. WAND Emulation Output  
DB 9 Female**

Pin No.	Function
2	DATA
7	GND
9	Vcc(+5V)



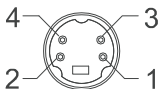
**4. ADB Interface  
MiniDIN 4 MALE**

Pin No.	Function
1	ADB
3	Vcc
4	GND



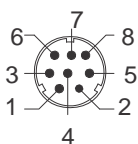
**MiniDIN 4 FEMALE**

Pin No.	Function
1	ADB
3	Vcc
4	GND



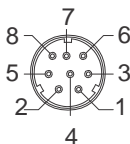
**5. NEC 9801 Interface  
MiniDIN 8 MALE**

Pin No.	Function
1	RST
2	GND
3	HOST RDY
4	HOST DATA
5	RTY
8	+5V



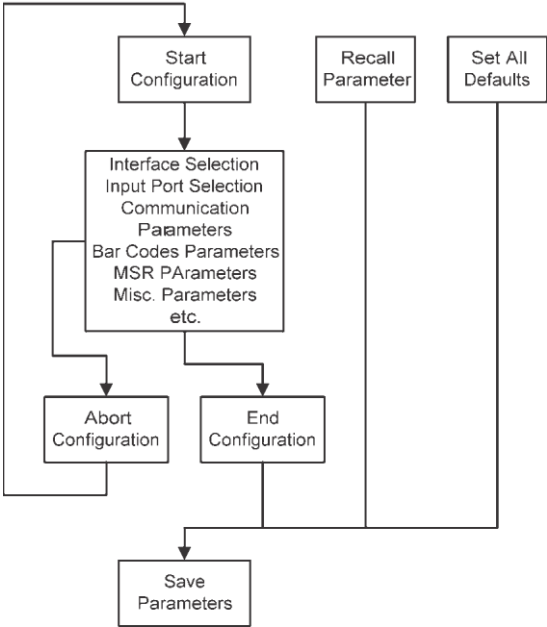
**MiniDIN 8 FEMALE**

Pin No.	Function
1	RST
3	GND
4	KB RDY
5	KB DATA
4	RTY
5	+5V



# 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**



%\$+/0

**Recall Stored Parameters**



%\$+/1

**Set All Defaults**



%\$+/2

**Start Configuration**



%\$+/3

**End Configuration**



%\$+/4

**Abort Configuration**



%\$+/6

**Version Information**



%\$+/5

**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>



%00 U0

RS232 Mode



%00 U8

WAND Emulation



%00 M2

USB Mode



%0 X08

## 3.2 Reading Mode Selection

<Good Read OFF>



%0271

Continuous/Trigger OFF



%0272

Trigger ON/OFF



%0270

Testing



%0275

Continuous/Auto Power On



%0273

Flash



%0274

Flash/Auto Power On



%0276

Reserved1



%0277

Auto Sense(Optional)



%09F8

Reserved3



%09F9

Reserved4



%09FA

Reserved5



%09FB

# Ch.4 Communication Parameters

## 4.1 RS232 Communication Parameters

### A> Set Up BAUD Rate

2400



%0Y72

1200



%0Y71

<9600>



%0Y77

4800



%0Y73

38400



%0Y75

19200



%0Y74

### B> Set Up Data Bits

7 Data Bits



%0Y80

<8 Data Bits>



%0Y88

### C> Set Up Stop Bits

<1 Bit>



%0Y08

2 Bits



%0Y00



## D> Set Up Parity

<None>



%0YN7

Even



%0YN 2

Odd



%0YN3

Mark



%0YN1

Space



%0YN0

## 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

## 4.2 Keyboard Wedge Mode Parameters

### A > Terminal Type

<IBM PC/AT, PS/2>



%ZF0

IBM PC/XT



%ZF1

IBM PS/2 25, 30



%ZF2

NEC 9800



%ZF3

Apple Desktop Bus(ADB)



%ZF4

IBM 5550



%ZF5

IBM 122 Key (1)



%ZF6

IBM 102 Key



%ZF7

IBM 122 Key (2)



%ZF8

Reserved 1



%ZF9

Reserved 2



%ZFA

Reserved 3



%ZFB

Reserved 4



%ZFC

Reserved 5



%ZFD

## B> Upper/Lower Case

<No Change>



%0330

Upper Case



%0331

Lower Case



%0332

## C> Caps Lock Detection

Enable



%0X88

<Disable>



%0X80

## D> Send Character by ALT Method

Enable



%0308

<Disable>



%0300

## E> Select Numerical Pad

ON



%01 K4

<OFF>



%01 K0

## 4.3 Output Characters Parameters

### 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

## 4.4 Wand Emulation Mode Parameters

### A> TTL Level Representation

<Bar Equals High>



%02K4

Bar Equals Low



%02K0

### B> Scan Speed Selection

<Fast>



%0288

Slow



%0280

### C> Output Format Selection

<Output as Code 39>



%0208

Output as Code 39  
Full ASCII



%0200

Output as Original  
Code Format



%0XK4

# Ch.5 Bar Codes & Others

## 5.1 Symbologies Selection

UPC-A <ON>



%0A44

OFF



%0A40

UPC-E <ON>



%0B08

OFF



%0B00

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



%0A22

OFF



%0A20

EAN-8/JAN-8 <ON>



%0A11

OFF



%0A10

CODE 39 <ON>



%0E08

OFF



%0E00

CODE 128 <ON>



%0F08

OFF



%0F00

CODABAR/NW7 <ON>



%0J08

OFF



%0J00

Interleave 25 <ON>



%0GO8

OFF



%0GO0

Industrial 25 ON



%0HO8

<OFF>



%0HO0

Matrix 25 ON



%0I O8

<OFF>



%0I O0

CODE 93 ON



%0KO8

<OFF>



%0KO0

CODE 11 ON



%0LO8

<OFF>



%0LO0

China Postage ON



%CMO8

<OFF>



%0MO0

MSI/PLESSEY ON



%CNO8

<OFF>



%0NO0



Code 2 of 6ON



%0PO8

<OFF>



%0POC

LCD25 ON



%0QO8

<OFF>



%0QO0

Telepen ON



%0TO8

<OFF>



%0TO0

Reserved5 ON



%0RO8

<OFF>



%0RO0

Reserved6 ON



%0SO8

<OFF>



%0SO0

GS1 DataBar Omnidirectional ON



%0U08



%0U00

GS1 DataBar Limited ON



%0V08



%0V00

GS1 DataBar Expanded ON



%0W08



%0W00

Select All Bar Codes



%1 A/+

## 5.2 UPC/EAN/JAN Parameters

### A Reading Type

UPCA=EAN13 ON



ISBN-1C Enable



ISSN Enable



Decode with Supplement



Expand UPC-E  
Enable



EAN8=EAN13  
Enable



GTIN Format  
Enable



UPCA=EAN13<OFF>



ISBN-13 <Enable>



ISSN <Disable>



<Auto discriminate  
Supplement>



Expand UPC-E  
<Disable>



EAN8=EAN13  
<Disable>



GTIN Format  
<Disable>



## B> Supplemental Set Up

<Not Transmit>



%0B33

Transmit 5 Code



%0B32

Transmit 2 Code



%0B31

Transmit 2&5 Code



%0B30

## C> Check Digit Transmission

UPC-A Check Digit  
Transmission <ON>



%0A12

OFF



%0A10

UPC-E Check Digit  
Transmission <ON>



%0B12

OFF



%0B10

EAN-8 Check Digit  
Transmission <ON>



%0A88

OFF



%0A80

EAN-13 Check Digit  
Transmission <ON>



%0AH1

OFF



%0AH0

ISSN Check Digit  
Transmission <ON>



%0BK4

OFF



%0BK0

## 5.3 Code 39 Parameters

### 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> 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>



%4E1+

Fix Length (2 Sets Available)

1. 1st Set Begin



%4E00

2. Decimal Value  
(Appendix A)

3. 1st Set Complete



%4E01

1. 2nd Set Begin



%4E00

2. Decimal Value  
(Appendix A)

3. 2nd Set Complete



%4E02

Minimum Length

1. Begin



%2+- /

2. Decimal Value  
(Appendix A)

3. Complete



%2C0+

## 5.4 Code 128 Parameters

### A> Reading Type

UCC/EA1-128  
Enable



%0F44

<Enable']C1'Code  
Format>



%0F22

<Enable Code128  
Group Separators(GS)>



%0F11

<UCC/EA1-128  
Disable>



%0F40

Disable']C1'Code  
Format



%0F20

Disable Code128  
Group Separators(GS)



%0F10

### B> Check Digit Transmission

Do Not Calculate  
Check Digit



%0FN1

<Calculate Check  
Digit & Not Transmit>



%0FN5

Calculate Check  
Digit & Transmit



%0FN7

### C> Append FNC2

ON



%0F88

<OFF>



%0F80

## 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 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>



%4E1+

#### Fix Length (2 Sets Available)

1. 1st Set Begin



%4F00

2. Decimal Value  
(Appendix A)

3. 1st Set Complete



%4F01

1. 2nd Set Begin



%4F00

2. Decimal Value  
(Appendix A)

3. 2nd Set Complete



%4F02

#### Minimum Length

1. Begin



%2+- /

2. Decimal Value  
(Appendix A)

3. Complete



%2C1+



## 5.5 Interleave 25 Parameters

### A> Check Digit Transmission

<Do Not Calculate  
Check Digit>



%0GN3

Calculate Check Digit  
& Transmit



%0GN7

Calculate Check Digit  
& Not Transmit



%0GN5

### B Set Up Number of Character

<Even>



%0G88

Odd



%0G80

### C Brazilian Banking Code

<Disable>



%0G40

Enable



%0G44

## 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



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



## 5.6 Industrial 25 Parameters

### A> Reading type

#### IATA25 Enable



%0H44

<Disable>



%0H40

### B Check Digit Transmission

#### <Do Not Calculate Check Digit>



%0HN3

Calculate Check Digit  
& Transmit



%0HN7

#### Calculate Check Digit & Not Transmit



%0HN5

### 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>



%0IN3

Calculate Check Digit  
& Transmit



%0IN7

Calculate Check Digit  
& Not Transmit



%0IN5

### 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>



%0J H0

### B> Transmission Type of Start/Stop

<A/B/C/D> <Start>



%04 V F

<A/B/C/D> <Stop>



%04 FF

A Start



%04 V1

A Stop



%04 F1

B Start



%04 V2

B Stop



%04 F2

C Start



%04 V4

C Stop



%04 F4

D Start



%04 V8

D Stop



%04 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  
(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





## 5.9 Code 93 Parameters

### A> Check Digit Transmission

<Calculate Check 2 Digits  
& Not Transmit>



Do Not Calculate  
Check Digit



### 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



## 5.10 Code 11 Parameters

### A> Check Digit Transmission

<Do Not Calculate  
Check Digit>



%0LN3

Calculate Check 1  
Digit & Transmit



%0LN7

Calculate Check 2 Digits  
& Not Transmit



%0LN5

Calculate Check 2  
Digits & Transmit



%0LN6

Calculate Check 2 Digits  
& Not Transmit



%0LN4

### 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



## 5.11 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.

**<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



## 5.12 Code 2 of 6 Parameters

### A> Check Digit Transmission

<Do Not Calculate  
Check Digit>



%0 PN3

Calculate Check  
Digit & Transmit



%0PN7

Calculate Check Digit  
& Not Transmit



%0PN5

### 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>



%0QN3

Calculate Check Digit  
& Transmit



%0QN7

Calculate Check  
Digit & Not Transmit



%0QN5

### 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



1. 2st Set Begin



2. Decimal Value  
(Appendix A)

2. 2nt Set Complete



Minimum Length

1. Begin



2. Decimal Value  
(Appendix A)

3. Complete



## 5.14 Telepen Parameters

### 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> 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>



%4T1+

### Fix Length (2 Sets Available)

1. 1st Set Begin



%4T00

2. Decimal Value  
(Appendix A)

3. 1st Set Complete



%4T01

1. 2nd Set Begin



%4T00

2. Decimal Value  
(Appendix A)

3. 2nd Set Complete



%4T02

### Minimum Length

1. Begin



%2%+/-

2. Decimal Value  
(Appendix A)

3. Complete



%2CF+

## 5.15 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 Parameters

**<Transmit Check Digit>**



%0VN7

Don't Transmit  
Check Digit



%0VN5

### <Transmit Application ID>



%0\88

Don't Transmit  
Application ID



%0\80

Transmit Symbology ID



%0\44

<Don't Transmit  
Symbology ID>



%0\40

## C> GS1 DataBar Expanded Parameters

Transmit Symbology ID



%0\44

<Don't Transmit  
Symbology ID>



%0\40

# Ch.6 Miscellaneous Parameters

## 6.1 Language Selection

<US English>



%0ZV0

UK English



%0ZV1

Italian



%0ZV2

Spanish



%0ZV3

French



%0ZV4

German



%0ZV5

Swedish



%0ZV6

Switzerland



%0ZV7

Hungarian



%0ZV8

Japanese



%0ZV9

Belgium



%0ZVA

Portuguese



%0ZVB

Denmark



%0ZVC

Netherlands



%0ZVD

Turkey



%0ZVE

Reserved2



%0ZVF



## 6.2 Bar Code ID

ON



<OFF>



Default



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.

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

### 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.

UPC-A



%01A+

UPC-E



%01B+

EAN-13/JAN-13



%91Y+

EAN-8/JAN-8



%01Z+

CODE 39



%01E+

CODE 128



%01F+

CODABAR/NW7



%01J+

Interleave 25



%91G+

Industrial 25



%91H+

Matrix 25



%91I+

CODE 93



%91K+

CODE 11



%91L+

ChinaPostage



%91M+

MSI/PLESSEY



%91N+

Code 2 of 6



Telepen



LCD25



GS1 DataBar  
Omnidirectional ON



GS1 DataBar  
Limited ON



GS1 DataBar  
Expanded ON



Reserved5



Reserved6



## 6.3 Reading Level

Bar Equals High



%0312

<Bar Equals Low>



%0310

## 6.4 Accuracy

<1 Time>



%0130

2 Times (V-1040/LG700)



%0131

3 Times



%0132

4 Times



%0133

## 6.5 Buzzer Beep Tone

<High>



%01J3

Medium



%01J2

Low



%01J1

Off



%01J0

## 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 from 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>



%03H0

Enable



%03H1

## 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



%800+

2. 2nd Set



%801+

3. 3rd Set



%802+

4. 4th Set



%803+

5. 5th Set



%804+

6. 6th Set



%805+

## B> Symbologies Selection

UPC-A



%81 A+

UPC-E



%81 B+

EAN-13/JAN-13/ISBN-13



%81 Y+

EAN-8/JAN-8



%81 Z+

CODE 39



%81 E+

CODE 128



%81 F+

CODABAR/N97



%81 J+

Interleave 25



%81 G+

Industrial 25



%81 H+

Matrix 25



%81 I+

CODE 93



%81 K+

CODE 11



%81 L+

China Postage



%81 M+

MSI/PLESSEY



%81 N+

Code 2 of 6



% 81P+

Telepen



%81T+

LCD25



%81Q+

GS1 DataBar  
Omnidirectional



%81U+

GS1 DataBar  
Limited



%81V+

GS1 DataBar  
Expanded



% 81W+

All Codes



%81S+

None



% 814+

## C> Character Position to be Deleted

1. Decimal Value  
(Appendix A)

2. Complete



%8 20+

## D> Number of Characters to be Deleted

1. Decimal Value  
(Appendix A)

2. Complete



%8 30+



## 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



%51A+

UPC-E



%51B+

EAN-13/JAN-13/ISBN-13



%51Y+

EAN-8/JAN-8



%51Z+

CODE 39



%51E+

CODE 128



%51F+

CODABAR/NW7



%51J+

Interleave 25



%51G+

Industrial 25



%51H+

Matrix 25



%51I+

CODE 93



%51K+

CODE 11



%51L+

China Postage



%51M+

MSI/PLESSEY



%51N+

Telepen



%51T+

Code 2 of 6



%51P+

GS1 DataBar  
Omnidirectional



%51U+

LCD255



%51Q+

GS1 DataBar  
Expanded



%51W+

GS1 DataBar  
Limited



%51V+

None



%514+

All Codes



%51S+

## C> Character Position to be Inserted

1. Decimal Value  
(Appendix A)

2. Complete



%520+

## D> Characters to be Inserted

1. ASCII Table  
(Appendix B)

2. Complete



%530+

## 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.

## C>Setup HID Slave Mode



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

0



1



2



3



4



5



6



7



8



9



## Appendix B ASCII Table

NULL



00

ETX



03

ACK



06

HT



09

FF



0C

SI



0F

DC2



12

NAK



15

CAN



18

ESC



1B

RS



1E

STX



02

ENQ



05

BS



08

VT



0B

SO



0E

DC1



11

DC4



14

ETB



17

SUB



1A

GS



1D

SOH



01

EOT



04

BEL



07

LF



0A

CR



0D

DLE



10

DC3



13

SYN



16

EM



19

FS



1C

US



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SPACE



20

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23

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26

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29

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7E

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68

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6B

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6E

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71

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74

w



77

z



7A

}



7D

a



61

d



64

g



67

j



6A

m



6D

p



7C

s



73

v



76

y



79

|



7C

DEL



7F

# Appendix C Function Key Table

F1



C0

F2



C1

F3



C2

F4



C3

F5



C4

F6



C5

F7



C6

F8



C7

F9



C8

F10



C9

F11



CA

F12



CB

Insert



CC

Delete



CD

Home



CE

Page Up



CF

Page Down



D0

End



D1

Left



D2

Right



D3

Up



D4












Down



D5

75

# Appendix D Decimal Value Table II

<b>0</b>		<b>1</b>	
<b>2</b>		<b>3</b>	
<b>4</b>		<b>5</b>	
<b>6</b>		<b>7</b>	
<b>8</b>		<b>9</b>	
<b>Enter</b>			

All above programming are subject to change without notice.



Save Parameters



Recall Stored Parameters



Set All Defaults



Start Configuration



End Configuration



Abort Configuration



Version Information



Ver3.9  
0145-85E0011

