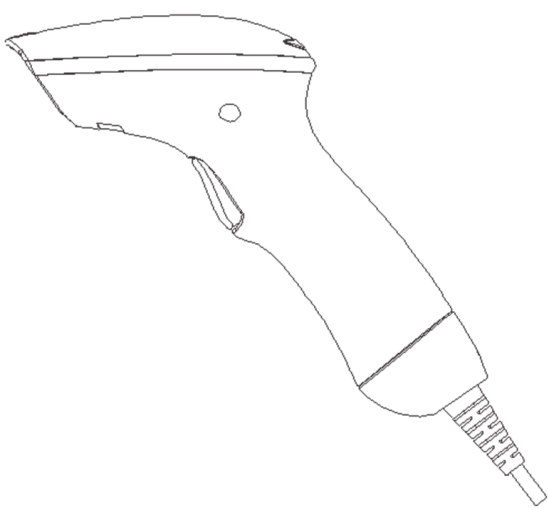
ARTICONA

PROGRAMMING GUIDE



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Programming Guide

V4.2

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.

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 to ANSI C63.4 & FCC Part 15 B Regulation and CISPR22 Class B.

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 reuse 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.

Notice

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Ch. 1 Description

1.1 General

Thank you for purchasing this linear imager barcode scanner. The user friendly functions make it easily to be operated to accommodate variety of environment. It also provides users with the most cost-effective solution in the market. The scanner is perfectly suitable and definitely the best choice for any retail and logistic environment.

1.2 Introduction

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

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

1.3 Codes Read

The scanner supports following barcode types: 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 Post, Code32/Italian Pharmacy, Code 26, LCD 25, Telepen, GS1 Databar, and others available upon request.

1.4 Installation

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

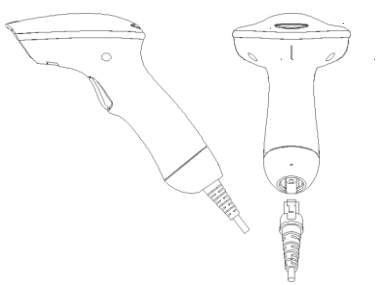
Connecting the scanner -
Keyboard wedge/RS-232C/USB:
Connect the 10-pins RS-45 male connector to the bottom of scanner and you will hear a “click” when the connection is made.

Power supply for RS-232C scanner -
There are 3 ways to supply the power: external +5V power supply adaptor, optional power cable (KBDC) which taking the power from KB wedge or +5V power supplied from the pin 9 of host.

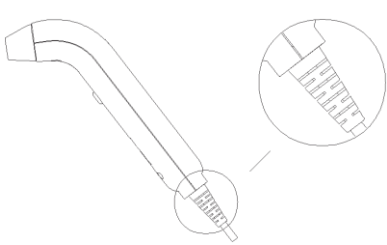
Installing the scanner to the Host System -
1. Turn off the host system.
2. Connect the power if needed.
3. Connect to the proper port on the host system.
4. Turn on the host system.

Switching cable -
Before removing the cable from the scanner, it is recommended to turn off power on the host system and disconnect the power supply 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. When hear a "click", gently move out the strain-relief of the cable and it will slide out of the +scanner.



or



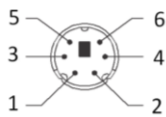
1.5 Pin Assignment

A.

Keyboard Output

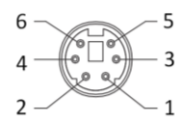
MiniDIN 6 MALE

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



MiniDIN 6 FEMALE

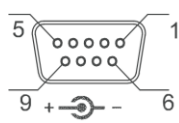
Pin No.	Function
1	KB DATA
3	GND
4	Vcc
5	KB CLK



B.

RS-232 Output
DB 9 Female

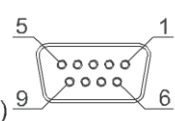
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
Power Lead	Vcc (+5V)



C.

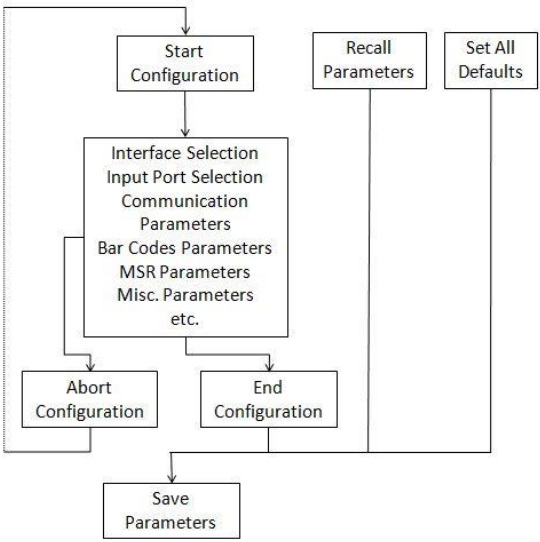
WAND Emulation Output
DB 9 Female

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



Ch. 2 Configuration

2.1 Flow Chart



2.2 Loop of Programming

The procedure of programming parameters is shown on the flow chart. Basically it is implemented by:

1. Scan “Start Configuration”.
2. Scan all necessary barcodes for parameters that meet applications.
3. Scan “End Configuration” to end the programming.
4. To permanently save the parameters, scan “Save Parameters”.
5. To go back to the default settings, scan “Set All Defaults”.

2.3 Factory Default Settings

The factory default settings are shown with <> and bold in the following sections. Make your own settings by following the procedures in this manual. To save the settings permanently, scan the barcode of “Save Parameters” on “Main Page of Configuration”. Otherwise the settings will be lost after the decoder power is off, and all settings will go back to previous saved settings.

By scanning “Set All Default” barcode, the settings will go back to the factory default settings.

2.4 Main Page of Configuration

Save Parameters

Recall Stored Parameters

Set All Defaults

Start Configuration

End Configuration

Abort Configuration

Version Information

Save Parameters -
The parameters will be saved permanently.

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

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

Abort Configuration -
Terminate the current programming procedure.

Version Information -
Display the decoder version and date code.

Ch. 3 Interface and Reading Mode

3.1 Interface Selection

Keyboard Mode

%00U0

RS232 Mode

%00U8

WAND Emulation

%00M2

<USB Mode>

%0XO8

Virtual COM

%0088

3.2 Reading Mode Selection

<Good Read OFF>

%0271

Trigger ON/OFF

%0270

Continuous/Trigger OFF

%0272

Testing

%0275

Continuous/Auto Power ON

%0273

Flash/Trigger OFF

%0274

Flash/Auto Power ON

%0276

Reserved1

%0277

Auto Sense(Option)

%09F8

Reserved3

%09F9

Reserved4

%09FA

Reserved5

%09FB

Ch. 4 Communication Parameters

4.1 RS232 Communication Parameters

A> Baud Rate

1200

%0Y71

2400

%0Y72

4800

%0Y73

<9600>

%0Y77

19200

%0Y74

38400

%0Y75

B> Data Bits

7 Data Bits

%0Y80

<8 Data Bits>

%0Y88

C> Stop Bits

<1 Bit>

%0YO8

2 Bits

%0YO0

D> Parity Check

<None>

%0YN7

Even

%0YN2

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>

%0ZF0

IBM PC/XT

%0ZF1

IBM PS/2 25, 30

%0ZF2

NEC 9800

%0ZF3

Apple Desktop Bus(ADB)

%0ZF4

IBM 5550

%0ZF5

IBM 122 Key (1)

%0ZF6

IBM 102 Key

%0ZF7

IBM 122 Key (2)

%0ZF8

Reserved 1

%0ZF9

Reserved 2

%0ZFA

Reserved 3

%0ZFB

Reserved 4

%0ZFC

Reserved 5

%0ZFD

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 Numeric Pad

ON

<OFF>

4.3 Output Character 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>

%02O8

Output as Code 39
Full ASCII

%02O0

Output as Original
Code Format

%0XK4

Ch. 5 Barcodes & Others

5.1 Symbology Selection

UPC-A **<ON>**

%0A44

OFF

%0A40

UPC-E **<ON>**

%0BO8

OFF

%0BO0

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

%0A22

OFF

%0A20

EAN-8/JAN-8 **<ON>**

%0A11

OFF

%0A10

CODE 39 **<ON>**

%0EO8

OFF

%0EO0

CODE 128 **<ON>**

%0FO8

OFF

%0FO0

Codabar/NW7 **<ON>**

%0JO8

OFF

%0JO0

Interleaved 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 Post ON

%CMO8

<OFF>

%0MO0

MSI/Plessey ON

%CNO8

<OFF>

%0NO0

Code 2 of 6 ON

%0PO8

<OFF>

%0PO0

LCD 25 ON

%0QO8

<OFF>

%0QO0

Telepen ON

%0TO8

<OFF>

%0TO0

Reserved5 ON

%0RO8

<OFF>

%0RO0

Reserved6 ON

%0SO8

<OFF>

%0SO0

GS1 Databar-Omnidirectional ON

%0UO8

<OFF>

%0UO0

GS1 Databar-Limited ON

%0VO8

<OFF>

%0VO0

GS1 Databar-Expanded ON

%0WO8

<OFF>

%0WO0

Select All Barcodes

%1A/+

5.2 UPC/EAN/JAN Parameters

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 Supplement

%01O0

<Auto discriminate Supplemental>

%01O8

Expand UPC-E Enable

%0BH1

Expand UPC-E **<Disable>**

%0BH0

EAN8=EAN13 Enable

%0AO8

EAN8=EAN13 **<Disable>**

%0AO0

GTIN Format Enable

%0X44

GTIN Format **<Disable>**

%0X40

B> Supplemental Setup

<Not Transmit>

%0B33

Transmit 2 Digits

%0B31

Transmit 5 Digits

%0B32

Transmit 2&5 Digits

%0B30

C> Check Digit Transmission

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

%0AI2

OFF

%0AI0

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

%0BI2

OFF

%0BI0

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> Setup Code Length

To set the fixed length:

1. Scan “Begin” for the desired set.
2. Go to the Decimal Value Table in Appendix A. Scan barcode(s) that represents the length to be read.
3. Scan “Complete” for 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/EAN-128
Enable

%0 F44

<UCC/EAN-128 Disable>

%0F40

Enable ']C1' Code Format

%0F22

<Disable']C1'Code Format>

%0F20

Enable Code128 Group Separators(GS)

%0F11

<Disable Code128 Group Separators(GS)>

%0F10

B> Check Digit Transmission

Do Not Calculate Check Digit

%0FN1

Calculate Check Digit & Transmit

%0FN7

<Calculate Check Digit & Not Transmit>

%0FN5

Do Not Calculate Check Digit & Transmit

%0FN3

C> Append FNC2

ON

%0F88

<OFF>

%0F80

D> Setup Code Length

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

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

%4F1+

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 Interleaved 25 Parameters

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 Character

<Even>

%0G88

Odd

%0G80

C> Brazilian Bank Code

<Disable>

%0G40

Enable

%0G44

D> Setup Code Length

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

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

%4G1+

Fix Length (2 Sets Available)

1. 1st Set Begin

%4G00

2. Decimal Value (Appendix A)

3. 1st Set Complete

%4G01

1. 2nd Set Begin

%4G00

2. Decimal Value (Appendix A)

3. 2nd Set Complete

%4G0 2

Minimum Length

1. Begin

%2+- /

2. Decimal Value (Appendix A)

3. Complete

% 2C2 +

5.6 Industrial 25 Parameters

A> Reading Type

IATA25 Enable

%0H44

IATA25 **<Disable>**

%0 H40

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

To set the fixed length:

1. Scan “Begin” for the desired set.
2. Go to the Decimal Value Table in Appendix A. Scan barcode(s) that represents the length to be read.
3. Scan “Complete” for the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

%4 H1+

Fix Length (2 Sets Available)

1. 1st Set Begin

%4 H00

2. Decimal Value (Appendix A)

3. 1st Set Complete

%4 H01

1. 2nd Set Begin

%4H00

2. Decimal Value (Appendix A)

3. 2nd Set Complete

%4 H02

Minimum Length

1. Begin

%2 + - /

2. Decimal Value (Appendix A)

3. Complete

%2 C3 +

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> Setup Code Length

To set the fixed length:

1. Scan “Begin” for the desired set.
2. Go to the Decimal Value Table in Appendix A. Scan barcode(s) that represents the length to be read.
3. Scan “Complete” for 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> Setup Start/Stop Characters Upon Transmission

ON

%C J H1

<OFF>

%0J H0

B> Check Digit Transmission

<Do Not Calculate Check Digit & Transmit>

%0JM2

Calculate Check Digit & Transmit

%0JM6

Calculate Check Digit & Not Transmit

%0JM4

C> Transmission Type of Start/Stop

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

%04 V F

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

%04FF

A Start

%04 V1

A Stop

%04 F1

B Start

%04 V 2

B Stop

%04 F 2

C Start

%0 4V4

C Stop

%04 F 4

D Start

%0 4 V 8

D Stop

%04F8

C> Setup Code Length

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

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

%4J1+

Fix Length (2 Sets Available)

1. 1st Set Begin

%4J00

2. Decimal Value (Appendix A)

3. 1st Set Complete

%4J01

1. 2nd Set Begin

%4J00

2. Decimal Value (Appendix A)

3. 2nd Set Complete

%4J02

Minimum Length

1. Begin

%2+-/

2. Decimal Value (Appendix A)

3. Complete

%2C5+

5.9 Code 93 Parameters

A> Check Digit Transmission

<Calculate 2 Check Digits & Not Transmit>

%0KN4

Do Not Calculate Check Digits

%0KN3

B> Setup Code Length

To set the fixed length:

1. Scan “Begin” for the desired set.
2. Go to the Decimal Value Table in Appendix A. Scan barcode(s) that represents the length to be read.
3. Scan “Complete” for the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

%4K1+

Fix Length (2 Sets Available)

1. 1st Set Begin

%4K00

2. Decimal Value (Appendix A)

3. 1st Set Complete

%4K01

1. 2nd Set Begin

%4K00

2. Decimal Value (Appendix A)

3. 2nd Set Complete

%4K02

Minimum Length

1. Begin

%2+-/

2. Decimal Value (Appendix A)

3. Complete

%2C6+

5.10 Code 11 Parameters

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 Digits & Transmit

%0LN6

Calculate 2 Check Digits & Not Transmit

%0LN4

B> Setup Code Length

To set the fixed length:

1. Scan “Begin” for the desired set.
2. Go to the Decimal Value Table in Appendix A. Scan barcode(s) that represents the length to be read.
3. Scan “Complete” for the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

%4L1+

Fix Length (2 Sets Available)

1. 1st Set Begin

%4L00

2. Decimal Value (Appendix A)

3. 1st Set Complete

%4L01

1. 2nd Set Begin

%4L00

2. Decimal Value (Appendix A)

3. 2nd Set Complete

%4L02

Minimum Length

1. Begin

%2+-/

2. Decimal Value (Appendix A)

3. Complete

%2C7+

5.11 MSI/Plessey Parameters

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

To set the fixed length:

1. Scan “Begin” for the desired set.
2. Go to the Decimal Value Table in Appendix A. Scan barcode(s) that represents the length to be read.
3. Scan “Complete” for the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

%4N1+

Fix Length (2 Sets Available)

1. 1st Set Begin

%4N00

2. Decimal Value (Appendix A)

3. 1st Set Complete

%4N01

1. 2nd Set Begin

%4N00

2. Decimal Value (Appendix A)

3. 2nd Set Complete

%4N02

Minimum Length

1. Begin

%2+-/

2. Decimal Value (Appendix A)

3. Complete

%2C9+

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> Setup Code Length

To set the fixed length:

1. Scan “Begin” for the desired set.
2. Go to the Decimal Value Table in Appendix A. Scan barcode(s) that represents the length to be read.
3. Scan “Complete” for the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

%4P1+

Fix Length (2 Sets Available)

1. 1st Set Begin

%4P00

2. Decimal Value (Appendix A)

3. 1st Set Complete

%4P01

1. 2nd Set Begin

%4P00

2. Decimal Value (Appendix A)

3. 2nd Set Complete

%4P02

Minimum Length

1. Begin

%2+-/

2. Decimal Value (Appendix A)

3. Complete

%2CB+

5.13 LCD 25 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 “Begin” for the desired set.
2. Go to the Decimal Value Table in Appendix A. Scan barcode(s) that represents the length to be read.
3. Scan “Complete” for the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

%4Q1+

Fix Length (2 Sets Available)

1. 1st Set Begin

%4 Q00

2. Decimal Value (Appendix A)

3. 1st Set Complete

%4 Q01

1. 2st Set Begin

%4 Q00

2. Decimal Value (Appendix A)

2. 2nt Set Complete

%4 Q02

Minimum Length

1. Begin

%2+-/

2. Decimal Value (Appendix A)

3. Complete

%2 C C +

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> Setup Code Length

To set the fixed length:

1. Scan “Begin” for the desired set.
2. Go to the Decimal Value Table in Appendix A. Scan barcode(s) that represents the length to be read.
3. Scan “Complete” for 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 Parameters

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 Symbology ID

%0V44

<Don‘t Transmit Symbology ID>

%0V40

C> GS1 Databar-Expanded

Transmit Symbology ID

%0W44

<Don‘t Transmit Symbology ID>

%0W40

Ch. 6 Miscellaneous Parameters

6.1 Language Selection

<US English>

%0ZV0

UK English

%0ZV1

Italian

%0ZV2

Spanish

%0ZV3

French

%0ZV4

German

%0ZV5

Swedish

%0ZV6

Swiss

%0ZV7

Hungarian

%0ZV8

Japanese

%0ZV9

Belgium

%0ZVA

Portuguese

%0ZVB

Danish

%0ZVC

Dutch

%0ZVD

Turkish

%0ZVE

Reserved2

%0ZVF

6.2 Barcode ID

ON

%0 0 H1

<OFF>

%0 0 H0

Default

%9 1 3 +

With this function ON, a leading character, barcode ID, will be added to the output string while scanning barcodes.

Refer to the following table to check what type of barcode is scanned.

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

User Define Code ID

To set desired code ID:

1. Scan the symbology barcode.
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 with the same code ID.

UPC-A

%91A+

UPC-E

%91B+

EAN-13/JAN-13

%91Y+

EAN-8/JAN-8

%91Z+

CODE 39

%91E+

CODE 128

%91F+

Codabar/NW7

%91J+

Interleaved 25

%91G+

Industrial 25

%91H+

Matrix 25

%91I+

CODE 93

%91K+

CODE 11

%91L+

China Post

%91M+

MSI/Plessey

%91N+

Code 2 of 6

%91P+

Telepen

%91T+

LCD25

%91Q+

GS1 Databar-
Omnidirectional

%91U+

GS1 Databar-
Limited

%91V+

GS1 Databar-
Expanded

%91W+

Reserved5

%91R+

Reserved6

%91S+

6.3 Reading Level

Bar Equals High

<Bar Equals Low>

6.4 Accuracy

<1 Time>

2 Times (V-1040/LG700)

3 Times

4 Times

6.5 Buzzer Tone

<High>

Medium

Low

OFF

6.6 Power On Beep(Option)

<High>

%A4J3

Low

%A4J1

OFF

%A4J0

6.7 Vibration Settings(Option)

A> Vibration

ON

%09K4

<OFF>

%09K0

B> Vibration Duration

50ms

%A471

<100ms>

%A472

300ms

%A473

500ms

%A474

1000ms

%A475

6.8 Screen Reading(Option)

Screen Reading ON

%A488

<Screen Reading OFF>

%A480

6.9 Sensitivity of Continuous Reading Mode

A> Quick Setting:

<Fast>

%0388

Slow

%0380

B> Same Code Delay Reading 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 3 (0.3 seconds).

This setting is only applicable to continuous and flash reading modes.

To setup same code delay reading interval:

1. Scan "Begin".
2. Go the Decimal Value Tables in Appendix A. Scan barcodes(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 A)

3. Complete

%3001

6.10 Reverse Output Characters

<Disable>

%03H0

Enable

%03H1

6.11 Setup Deletion

Setup the deletion of output characters:

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

Repeat steps 1 - 6 to configure additional deletion set.

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> Symbology Selection

UPC-A

%81A+

UPC-E

%81B+

EAN-13/JAN-13/ISBN-13

%81Y+

EAN-8/JAN-8

%81Z+

CODE 39

%81E+

CODE 128

%81F+

Codabar/NW7

%81J+

Interleaved 25

%81G+

Industrial 25

%81H+

Matrix 25

%81I+

CODE 93

%81K+

CODE 11

%81L+

China Post

%81M+

MSI/Plessey

%81N+

Code 2 of 6

% 81P+

Telepen

%81T+

LCD 25

%81Q+

GS1 DataBar-
Omnidirectional

%81U+

GS1 DataBar-
Limited

%81V+

GS1 DataBar-
Expanded

% 81W+

All Barcodes

%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+

6.12 Setup Insertion

Setup the insertion of output characters:

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

Repeat steps 1 - 6 to configure additional insertion set.

A> Select Insertion Set Number

1. 1st Set

2. 2nd Set

3. 3rd Set

4. 4th Set

5. 5th Set

6. 6th Set

B> Symbology 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+

Interleaved 25

%51G+

Industrial 25

%51H+

Matrix 25

%51I+

CODE 93

%51K+

CODE 11

%51L+

China Post

%51M+

MSI/Plessey

%51N+

Code 2 of 6

%51P+

Telepen

%51T+

LCD 25

%51Q+

GS1 Databar-
Omnidirectional

%51U+

GS1 Databar-
Limited

%51V+

GS1 Databar-
Expanded

%51W+

All Barcodes

%51S+

None

%514+

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+

6.13 Multi-Parallel Lines Mode(Option)

<Double-Click to Interchange Multi Parallel/Single Line>

%0DK4

Multiple Parallel Lines Only

%0DO8

Single Line Only

%0DO0

Ch. 7 Bluetooth Configuration

Set BT Parameter Default

%+$000C$

7.1 Bluetooth Profile Selection

A>SPP Master Mode

<SPP Master Mode>

%A1J3

Follow the steps below to setup the connection between the scanner and cradle in SPP Master Mode.

1) Scan “SPP Master Mode”.
2) Scan the Bluetooth MAC address barcode located at 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 connection process.
5) When the connection is successful, the scanner sounds an ascending tone with the blue LED flashes slowly, and the cradle blue LED is continuous on.

B>SPP Slave Mode

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.

C>HID Slave Mode

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 D to scan the number 0-9 for pin codes.
3) When the connection is successful, the scanner sounds an ascending tone with blue LED flashes slowly.

7.2 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.

<Out of Range Enable>

%A144

Out of Range Disable

%A140

7.3 Cradle ID Visibility

Invisible

%A281

<Visible>

%A280

7.4 Auto Connection

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

7.5 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

7.6 Virtual Keyboard

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

<Virtual Keyboard Enable>

%A4O8

Virtual Keyboard Disable

%A4O0

7.7 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.

Sleep Mode 1 min

%A272

Sleep Mode10 mins

%A273

<Sleep Mode OFF>

%A270

7.8 Batch Mode

"***" indicates "Quick Setting Barcode". The function can be executed directly by scanning barcode instead of doing the general programming process.

Batch Mode ON

%A1O8

< Batch Mode OFF>

%A1O0

*** Delete Last Data

%+$000O$

******* Batch Data Read

%+$000H$

*** Batch Data Clear

%+$000I$

7.9 Firmware Version

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

Scanner Firmware Version

%+$000K$

Cradle Firmware Version

%+$000Y$

Scanner MAC Address

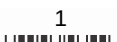
%+$000L$

Cradle MAC Address

%+$001P$

Appendix A Decimal Value Table

0



1

2

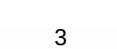
3

4

5

6

7



8

9

Appendix B ASCII Table

NULL

00

STX

02

SOH

01

ETX

03

ENQ

05

EOT

04

ACK

C6

BS

08

BEL

07

HT

09

VT

0B

LF

0A

FF

0C

SO

0E

CR

0D

SI

0F

DC1

11

DLE

10

DC2

12

DC4

14

DC3

13

NAK

15

ETB

17

SYN

16

CAN

18

SUB

1A

EM

19

ESC

1B

GS

1D

FS

1C

RS

1E

US

1F

SPACE

20

“

22

!

21

#

23

%

25

$

24

&

26

(

28

‘

27

)

29

+

2B

*

2A

,

2C

.

2E

-

2D

/

2F

1

31

0

30

2

32

4

34

3

33

5

35

7

37

6

36

8

38

:

3A

9

39

;

3B

=

3D

<

3C

>

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

52

S

53

T

54

U

55

V

56

W

57

X

58

Y

59

Z

5A

[

5B

\

5C

]

5D

^

5E

_

5F

`

60

a

61

b

62

c

63

d

64

e

65

f

66

g

67

h

68

i

69

j

6A

k

6B

l

6C

m

6D

n

6E

o

6F

p

70

q

71

r

72

s

73

t

74

u

75

v

76

w

77

x

78

y

79

z

7A

{

7B

|

7C

}

7D

~

7E

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

ESC

D6

BS

D7

Tab

D8

Shift

D9

Ctrl

DA

Alt

DB

Appendix D Numeric Keypad Table

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

All the above programming materials are subject to change without prior notice.

Save Parameters

%$+/0

Recall Stored Parameters

%$+/1

Set All Defaults

%$+/2

Start Configuration

%$+/3

End Configuration

%$+/4

Abort Configuration

%$+/6

Version Information

%$+/5

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