

B A R C O D E  
S C A N N E R

operation  
manual



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## Introduction

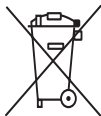
Thank you for selecting Birch barcode input product. The reader is equipped with up to date optical technology. It auto-discriminates the different kinds of barcode symbologies. Birch also provides other barcode related products to meet your application.

The easily plug and play design of the keyboard wedge interface, provides a flexible solution to your application to explore the magic of the barcode system.

This manual provides an easily method to modify the decoding options and interface protocols by scanning the barcode in the manual. Before starting, please make sure that the barcode reader is properly powered. For PC keyboard emulation type interface, power is directly come from the system. For RS-232 or other non-PC keyboard emulation type interface, an external power is always needed.

### Codes Read

ALL UPC/EAN/JAN, Code 39, Code 39 Full ASCII, Code 128, Interleave 25, Industrial 25, Matrix 25, Code 26, CODABAR/NW7, Code 11, MSI/PLESSEY, Code 93, China Postage, LCD25, Telepen, GS1 Databar( RSS-14, RSS Limited, RSS Expanded).



### LEGISLATION AND WEEE SYMBOL

This marking shown on the product or its literature, indicates that it should not be disposed with other households wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable 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 supplier and check the terms and conditions of the purchase.

## Installation

### Installing the Keyboard Wedge Reader

To install a keyboard wedge reader, follow the steps below:

1. Turn off the power of the PC or Terminal.
2. Unplug keyboard from the PC or Terminal.
3. Make sure you have the Y Cable with appropriate connector type for your PC or Terminal.
4. Connect Scanner to your PC or Terminal
5. Connect the keyboard connector to the female connector of the Y cable
6. Turn on the power of PC or Terminal.

*If the installation is successful , the Green LED light on the top of the reader should light up, and you should hear three beeps from reader.*

### Installing the RS232 Reader

To install a RS232 reader, follow the steps below :

1. Turn off the power of the PC or Terminal.
2. Make sure the connector type from RS232 to the PC or Terminal is correct.
3. Plug AC Adaptor connector into connector of the reader.
4. Turn on the power of PC or Terminal.
5. Setup the Interface of the reader to RS232 mode by scanning the barcode in the Interface Selection section.

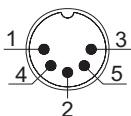
*If the installation is successful, the Green LED light on the top of the reader should light up, and you should hear three beeps from reader.*

# Pin Assignments

## 1. Keyboard Output

### DIN 5 MALE

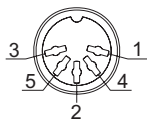
Pin No.	Function
1	HOST CLK
2	HOST DATA
4	GND
5	Vcc(+5V)



**DIN 5 Male**  
Pin Assignment

### DIN 5 FEMALE

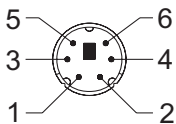
Pin No.	Function
1	KB CLK
2	KB DATA
4	GND
5	Vcc(+5V)



**DIN 5 Female**  
Pin Assignment

### MiniDIN 6 MALE

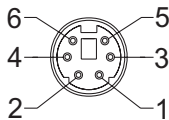
Pin No.	Function
1	HOST DATA
3	GND
4	Vcc
5	HOST CLK



**MiniDIN 6 Male**  
Pin Assignment

### MiniDIN 6 FEMALE

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

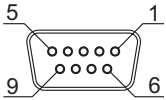


**MiniDIN 6 Female**  
Pin Assignment

## Pin Assignments

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

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



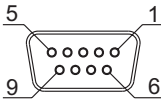
+5V +  - GND

**DB 9 Female Pin Assignment**

**Male DC Jack**

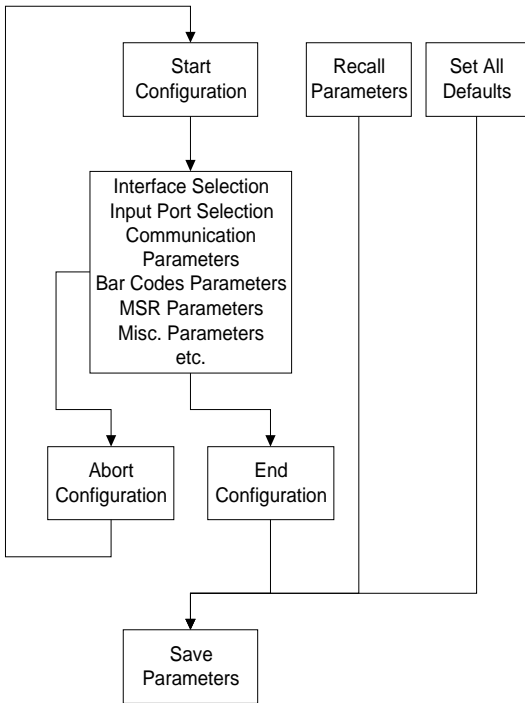
### 3. WAND Emulation Output DB 9 Female

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



**DB 9 Female Pin Assignment**

## Setup Flow Chart



## Loop of Programming

The philosophy of programming parameters has been shown on the flow chart. 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.



### **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" on page 9, 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.

## Setup Commands

### Save Parameters

Save the parameter settings permanently.



### Recall Stored Parameters

Replace the current parameters by which you had saved last time.



### Set All Defaults

Set all the parameters to the factory default settings.



### Start Configuration



### End Configuration



### Abort Configuration

Terminate current programming status.



### Version Information

Display the decoder version information and date code.





Start Configuration

## Interface

### Interface Selection



<Keyboard>

%00U0



RS232 Mode

%00U8



WAND Emulation

%00M2



USB Mode

%0X08

**Reading Mode**



End Configuration

**Reading Mode**

**<Good Read OFF>**



%0271

Trigger ON/OFF



%0270

Continuous/Trigger OFF



%0272

Continuous/Auto Power ON



%0273

Flash



%0274

Flash/Auto Power ON



%0276

Testing



%0275

Reserved1



%0277



Save Configuration



Start Configuration

## RS-232 Communication

### RS-232 Communication Parameters

#### Set Up BAUD Rate



%0Y71

1200



%0Y72

2400



%0Y73

4800



%0Y77

<9600>



%0Y74

19200

#### Set Up Data Bits



%0Y80

7 Data Bits



%0Y88

<8 Data Bits>

#### Set Up Stop Bits



%0Y08

<1 Bit>



%0Y00

2 Bits



**RS-232 Communication Parameters**

**Set Up Parity**

**<None>**



Even



Odd



Mark



Space



**Handshaking**

RTS/CTS Enable



**<RTS/CTS Disable>**



ACK/NAK Enable



**<ACK/NAK Disable>**



XON/XOFF Enable



**<XON/XOFF Disable>**





Start Configuration

## Keyboard Wedge

### Keyboard Wedge Parameters

#### Terminal Type



%0ZF0

<IBM PC/AT, PS/2>



%0ZF1

IBM PC/XT



%0ZF2

IBM PS/2 25, 30



%0ZF3

NEC 9800



%0ZF4

ADB



%0ZF5

IBM 5550



%0ZF6

IBM 122 Key (1)



%0ZF7

IBM 102 Key



%0ZF8

IBM 122 Key (2)



%0ZF9

Reserved 1



%0ZFA

Reserved 2



%0ZFB

Reserved 3



%0ZFC

Reserved 4



%0ZFD

Reserved 5

# Keyboard Wedge



End Configuration

## Keyboard Wedge Parameters

### Upper/Lower Case

<No Change>



%0330

Upper Case



%0331

Lower Case



%0332

### Send Character by ALT Method

Enable



%0308

<Disable>



%0300

### Select Numerical Pad

ON



%01K4

<OFF>



%01K0

### Capslock Detection

Enable



%0X88

<Disable>



%0X80



Save Configuration





Start Configuration

## Output Parameters

### Output Characters Parameters

#### Select Terminator



%7 S2+

<CR+LF>



%7 S7+

None



%7 S0+

CR



%7 S1+

LF



%7 S4+

Space



%7 S3+

HT(TAB)



%7 S5+

STX-ETX

Output Parameters



End Configuration

## Output Characters Parameters

### Time-out Between Characters

<0 ms>



%070

5 ms



%071

10 ms



%072

25 ms



%073

50 ms



%074

100 ms



%075

200 ms



%076

300 ms



%077



Save Configuration



Start Configuration

## Wand Emulation

### Wand Emulation

#### TTL Level Representation



%02K4

<Bar Equals High>



%02K0

Bar Equals Low

#### Scan Speed Selection



%0288

<Fast>



%0280

Slow

#### Output Format Selection



%0208

<Output as Code 39>



%0200

Output as Code 39  
Full ASCII



%0XK4

Output as Original  
Code Format

# Symbology



End Configuration

## Bar Code Type Selection

UPC-A

<ON>



%0 A44

OFF



%0 A40

UPC-E

<ON>



%0 B08

OFF



%0 B00

EAN-13/JAN-13/ ISBN 13

<ON>



%0 A22

OFF



%0 A20

EAN-8/JAN-8

<ON>



%0 A11

OFF



%0 A10

CODE 39

<ON>



%0 E08

OFF



%0 E00



Save Configuration



Start Configuration

## Symbology

### Bar Code Type Selection

#### CODE 128



%0FO8

<ON>



%0FO0

OFF

#### CODABAR/NW7



%0JO8

<ON>



%0JO0

OFF

#### Interleave 25



%0GO8

<ON>



%0GO0

OFF

#### Industrial 25



%0HO8

ON



%0HO0

<OFF>

#### Code 2 of 6



%0PO8

ON



%0PO0

<OFF>

# Symbology



End Configuration

## Bar Code Type Selection

### Matrix 25

ON



%01 08

<OFF>



%01 00

### CODE 93

ON



%0 K08

<OFF>



%0 K00

### CODE 11

ON



%0 L08

<OFF>



%0 L00

### China Postage

ON



%0 M08

<OFF>



%0 M00

### MSI/PLESSEY

ON



%0 N08

<OFF>



%0 N00



Save Configuration



Start Configuration

## Symbology

### Bar Code Type Selection

#### Telepen



%0 T08

ON



%0 T00

<OFF>

#### LCD25



%0 Q08

ON



%0 Q00

<OFF>

#### RSS-14



%0 U08

ON



%0 U00

<OFF>

#### RSS Limited



%0 V08

ON



%0 V00

<OFF>

#### RSS Expanded



%0 W08

ON



%0 W00

<OFF>



%1 A/ +

Select All Bar Codes

# Symbology



End Configuration

## UPC/EAN/JAN

### 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  
Supplementals



%0100

<Autodiscriminate  
Supplementals>



%0108



Save Configuration





Start Configuration

## Symbology

### UPC/EAN/JAN

#### Supplementals Set Up



%0B33

<Not Transmit>



%0B31

Transmit 2 Code



%0B32

Transmit 5 Code



%0B30

Transmit 2&5 Code

#### Expand UPC-E



%0BH1

Enable



%0BH0

<Disable>

#### EAN8 = EAN13



%0AO8

Enable



%0AO0

<Disable>

#### GTIN Format



%0X44

Enable



%0X40

<Disable>

# Symbology



End Configuration

## UPC/EAN/JAN

### Check Digit Transmission

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



%0A1 2

OFF



%0A1 0

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



%0B1 2

OFF



%0B1 0

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



%0A8 8

OFF



%0A8 0

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



%0AH1

OFF



%0AH0

ISSN Check Digit  
Transmission **<ON>**



%0BK4

OFF



%0BK0



Save Configuration



Start Configuration

## Symbology

### Code 39

#### Type of Code



%0EH1

<Standard>



%0EH0

Full ASCII



%0E80

Italian Pharmacy/Code  
32<OFF>



%0E88

Italian Pharmacy/  
Code 32 ON

#### Check Digit Transmission



%0EM2

<Do Not Calculate  
Check Digit>



%0EM6

Calculate Check Digit  
& Transmit



%0EM4

Calculate Check Digit  
& Not Transmit

#### Output Start/Stop Character



%0E44

Enable



%0E40

<Disable>

#### Decode Asterisk



%0E22

Enable



%0E20

<Disable>



**Code 39**

**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)**

1st Set Begin  
(Then scan value in  
Appendix A)



1st Set Complete



2nd Set Begin  
(Then scan value in  
Appendix A)



2nd Set Complete



**Minimum Length**

Begin(Then scan value  
in Appendix A)



Complete



Save Configuration



Start Configuration

## Symbology

### Code 128

#### Check Digit Transmission



%0FN1

Do Not Calculate  
Check Digit



%0FN7

Calculate Check  
Digit & Transmit



%0FN5

<Calculate Check  
Digit & Not Transmit>

#### Append FNC2



%0F88

ON



%0F80

<OFF>

#### UCC/EAN-128



%0F44

Enable



%0F40

<Disable>

# Symbology



End Configuration

## Code 128

### 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>**



%4 F 1 +

Fix Length (2 Sets Available)

1st Set Begin  
(Then scan value in  
Appendix A)



%4 F 0 0

1st Set Complete



%4 F 0 1

2nd Set Begin  
(Then scan value in  
Appendix A)



%4 F 0 0

2nd Set Complete



%4 F 0 2

Minimum Length

Begin(Then scan value  
in Appendix A)



%2 +- /

Complete



%2 C 1 +



Save Configuration



Start Configuration

## Symbology

### Interleave 25

#### Check Digit Transmission



%0 GN3

<Do Not Calculate  
Check Digit>



%0 GN7

Calculate Check  
Digit & Transmit



%0 GN5

Calculate Check  
Digit & Not Transmit

#### Set Up Number of Character



%0 G8 8

<Even>



%0 G8 0

Odd

#### Febraban Code



%0 G4 4

Enable



%0 G4 0

<Disable>

# Symbology



End Configuration

## Interleave 25

### 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>



%4 G1 +

Fix Length (2 Sets Available)

1st Set Begin  
(Then scan value in  
Appendix A)



%4 G0 0

1st Set Complete



%4 G0 1

2nd Set Begin  
(Then scan value in  
Appendix A)



%4 G0 0

2nd Set Complete



%4 G0 2

Minimum Length

Begin(Then scan value  
in Appendix A)



%2 +- /

Complete



%2 C2 +



Save Configuration





Start Configuration

## Symbology

### Industrial 25

#### Check Digit Transmission



%0 HN3

<Do Not Calculate  
Check Digit>



%0 HN7

Calculate Check  
Digit & Transmit



%0 HN5

Calculate Check  
Digit & Not Transmit

#### IATA25



%0 H44

Enable



%0 H40

<Disable>

## Symbology



End Configuration

### Industrial 25

#### 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)

1st Set Begin  
(Then scan value in  
Appendix A)



1st Set Complete



2nd Set Begin  
(Then scan value in  
Appendix A)



2nd Set Complete



Minimum Length

Begin(Then scan value  
in Appendix A)



Complete



Save Configuration



Start Configuration

## Code 2 of 6

### Check Digit Transmission



**<Do Not Calculate  
Check Digit>**



Calculate Check  
Digit & Transmit



Calculate Check  
Digit & Not Transmit



End Configuration

## Code 2 of 6

### 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)

1st Set Begin  
(Then scan value in  
Appendix A)



1st Set Complete



2nd Set Begin  
(Then scan value in  
Appendix A)



2nd Set Complete



Minimum Length

Begin(Then scan value  
in Appendix A)



Complete



Save Configuration



Start Configuration

## Symbology

### Matrix 25

#### Check Digit Transmission



<Do Not Calculate  
Check Digit>



Calculate Check  
Digit & Transmit



Calculate Check  
Digit & Not Transmit

# Symbology



End Configuration

## Matrix 25

### 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)

1st Set Begin  
(Then scan value in  
Appendix A)



1st Set Complete



2nd Set Begin  
(Then scan value in  
Appendix A)



2nd Set Complete



Minimum Length

Begin(Then scan value  
in Appendix A)



Complete



Save Configuration



Start Configuration

## Symbology

### CODABAR/NW7

#### Set Up Start/Stop Characters Upon Transmission



ON

%0JH1



<OFF>

%0JH0

#### Transmission Type of Start/Stop



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

%04VF



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

%04FF



A Start

%04V1



A Stop

%04F1



B Start

%04V2



B Stop

%04F2



C Start

%04V4



C Stop

%04F4



D Start

%04V8



D Stop

%04F8



## CODABAR/NW7

### 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)

1st Set Begin  
(Then scan value in  
Appendix A)



1st Set Complete



2nd Set Begin  
(Then scan value in  
Appendix A)



2nd Set Complete



Minimum Length

Begin(Then scan value  
in Appendix A)



Complete



Save Configuration





Start Configuration

## Symbology

### Code 93

#### Check Digit Transmission



%0KN4

<Calculate Check 2  
Digits & Not Transmit>



%0KN3

Do Not Calculate  
Check Digit

# Symbology



End Configuration

## Code 93

### 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>



%4 K1+

Fix Length (2 Sets Available)

1st Set Begin  
(Then scan value in  
Appendix A)



%4 K00

1st Set Complete



%4 K01

2nd Set Begin  
(Then scan value in  
Appendix A)



%4 K00

2nd Set Complete



%4 K02

Minimum Length

Begin(Then scan value  
in Appendix A)



%2 +- /

Complete



%2 C6+



Save Configuration



Start Configuration

## Symbology

### Code 11

#### Check Digit Transmission



%0LN3

<Do Not Calculate  
Check Digit>



%0LN7

Calculate Check 1  
Digit & Transmit



%0LN5

Calculate Check 1  
Digit & Not Transmit



%0LN6

Calculate Check 2  
Digits & Transmit



%0LN4

Calculate Check 2  
Digits & Not Transmit



**Code 11**

**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)**

1st Set Begin  
(Then scan value in  
Appendix A)



1st Set Complete



2nd Set Begin  
(Then scan value in  
Appendix A)



2nd Set Complete



**Minimum Length**

Begin(Then scan value  
in Appendix A)



Complete





Start Configuration

## Symbology

### MSI/PLESSEY

#### Check Digit Transmission



%0 NN3

Do Not Calculate  
Check Digit



%0 NN7

Calculate Check  
Digit & Transmit



%0 NN5

<Calculate Check  
Digit & Not Transmit>



**MSI/PLESSEY**

**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>**



%4 N1 +

**Fix Length (2 Sets Available)**

1st Set Begin  
(Then scan value in  
Appendix A)



%4 N0 0

1st Set Complete



%4 N0 1

2nd Set Begin  
(Then scan value in  
Appendix A)



%4 N0 0

2nd Set Complete



%4 N0 2

**Minimum Length**

Begin(Then scan value  
in Appendix A)



%2 +- /

Complete



%2 C9 +



Save Configuration



Start Configuration

## Symbology

### LCD 25

#### Check Digit Transmission



<Do Not Calculate  
Check Digit>



Calculate Check  
Digit & Transmit



Calculate Check  
Digit & Not Transmit



## LCD 25

**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>**



%4 Q1 +

Fix Length (2 Sets Available)

1st Set Begin  
(Then scan value in  
Appendix A)



%4 Q0 0

1st Set Complete



%4 Q0 1

2nd Set Begin  
(Then scan value in  
Appendix A)



%4 Q0 0

2nd Set Complete



%4 Q0 2

Minimum Length

Begin(Then scan value  
in Appendix A)



%2 +- /

Complete



%2 CC+



Save Configuration





Start Configuration

## Symbology

### Telepen

#### Type of Code



%0T80

<Full ASCII Mode>



%0T88

Compressed  
Numeric Mode

#### Check Digit Transmission



%0TN3

Do Not Calculate  
Check Digit



%0TN5

<Calculate Check  
Digit & Not Transmit>



%0TN7

Calculate Check  
Digit & Transmit

# Symbology



End Configuration

## Telepen

### 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)

1st Set Begin  
(Then scan value in  
Appendix A)



1st Set Complete



2nd Set Begin  
(Then scan value in  
Appendix A)



2nd Set Complete



Minimum Length

Begin(Then scan value  
in Appendix A)



Complete



Save Configuration



Start Configuration

## Symbology

### GS1 Databar (RSS Code)

#### RSS-14 Parameters



%0 UN7

**<Transmit Check Digit>**



%0 UN5

Do Not Transmit  
Check Digit



%0 U88

**<Transmit  
Application ID>**



%0 U80

Do Not Transmit  
Application ID



%0 U44

Transmit  
Symbology ID



%0 U40

**<Do Not Transmit  
Symbology ID>**

#### RSS Expanded Parameters



%0 W44

Transmit  
Symbology ID



%0 W40

**<Do Not Transmit  
Symbology ID>**

# Symbology



End Configuration

## GS1 Databar (RSS Code)

### RSS Limited Parameters

**<Transmit Check Digit>**



%0VN7

Do Not Transmit Check Digit



%0VN5

**<Transmit Application ID>**



%0V88

Do Not Transmit Application ID



%0V80

Transmit Symbology ID



%0V44

**<Do Not Transmit Symbology ID>**



%0V40



Save Configuration



Start Configuration

## Operation

### Language Selection



**<US English>**



UK English



Italian



Spanish



French



German



Swedish



Switzerland



Hungarian



Japanese

**Operation**



End Configuration

### Language Selection

Belgium



%0ZVA

Portuguese



%0ZVB

Denmark



%0ZVC

Netherlands



%0ZVD

Turkey



%0ZVE

Reserved2



%0ZVF



Save Configuration



Start Configuration

## Operation

### Bar Code ID



%00H1

ON



%00H0

<OFF>



%013+

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	RSS-14	U
RSS Limited	V	RSS Expanded	W

### User Define Code ID

To set the code ID:

1. Scan the symboligies 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 symboligies which have same code ID.**

**Operation**



End Configuration

**Bar Code ID**

UPC-A



%@ 1 A+

UPC-E



%@ 1 B+

EAN-13/JAN-13



%@ 1 Y+

EAN-8/JAN-8



%@ 1 Z+

CODE 39



%@ 1 E+

CODE 128



%@ 1 F+

CODABAR/NW7



%@ 1 J+

Interleave 25



%@ 1 G+

Industrial 25



%@ 1 H+

Code 2 of 6



%@ 1 P+

Matrix 25



%@ 1 I +



Save Configuration





Start Configuration

## Operation

### Bar Code ID



%01K+

CODE 93



%01L+

CODE 11



%01M+

China Postage



%01N+

MSI/PLESSEY



%01Q+

LCD25



%01T+

Telepen



%01U+

RSS-14



%01V+

RSS Limited



%01W+

RSS Expanded

Operation



End Configuration

### Misc. Parameters

#### Accuracy

<1 Time>



%0130

2 Times



%0131

3 Times



%0132

4 Times



%0133

#### Sensitivity of Continuous Reading Mode

<Fast>



%0388

Slow



%0380

#### Same Code Delay Reading Interval

Begin  
(Then scan value  
in Appendix A)



%30000

Complete



%30001



Save Configuration



Start Configuration

## Operation

### Misc. Parameters

#### Buzzer Beep Tone



%01J3

<High>



%01J2

Medium



%01J1

Low



%01J0

OFF

#### PnP/Notebooks



%0340

<Disable>



%0344

Enable

#### Reverse Output Characters



%03H0

<Disable>



%03H1

Enable

#### LED Control



%0908

<ON>



%0900

OFF



## Setup Deletion

### 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 symboligy.
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.

### Select Deletion Set Number

1. 1st Set



2. 2nd Set



3. 3rd Set



4. 4th Set



5. 5th Set



6. 6th Set





Start Configuration

## Operation

### Setup Deletion

#### Symboligies Selection



%8 1 A+

UPC-A



%8 1 B+

UPC-E



%8 1 Y+

EAN-13/JAN-13



%8 1 Z+

EAN-8/JAN-8



%8 1 E+

CODE 39



%8 1 F+

CODE 128



%8 1 J+

CODABAR/NW7



%8 1 G+

Interleave 25



%8 1 H+

Industrial 25



%8 1 I+

Matrix 25



%8 1 K+

CODE 93



%8 1 L+

CODE 11

**Operation**



End Configuration

### Setup Deletion

China Postage



%8 1 M+

MSI/PLESSEY



%8 1 N+

Code 2 of 6



%8 1 P+

Telepen



%8 1 T+

LCD25



%8 1 Q+

RSS-14



%8 1 U+

RSS Limited



%8 1 V+

RSS Expanded



%8 1 W+

All Codes



%8 1 S+

None



%8 1 4 +



Save Configuration



Start Configuration

## Operation

### Setup Deletion

#### Character Position to be Deleted

1. Scan Decimal Value  
in Appendix A first.



%820+

2. Complete

#### Number of Characters to be Deleted

1. Scan Decimal Value  
in Appendix A first.



%830+

2. Complete



## Setup Insertion

### 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 Apendix 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.

### Select Insertion Set Number

1st Set



%500+

2nd Set



%501+

3rd Set



%502+

4th Set



%503+

5th Set



%504+

6th Set



%505+







Start Configuration

## Operation

### Setup Insertion

#### Symbolologies Selection



%5 1 A+

UPC-A



%5 1 B+

UPC-E



%5 1 Y+

EAN-13/JAN-13



%5 1 Z+

EAN-8/JAN-8



%5 1 E+

CODE 39



%5 1 F+

CODE 128



%5 1 J+

CODABAR/NW7



%5 1 G+

Interleave 25



%5 1 H+

Industrial 25



%5 1 I+

Matrix 25



%5 1 K+

CODE 93



%5 1 L+

CODE 11

**Operation**



End Configuration

**Setup Insertion**

China Postage



%5 1 M+

MSI/PLESSEY



%5 1 N+

Code 2 Of 6



%5 1 P+

Telepen



%5 1 T+

LCD25



%5 1 Q+

RSS-14



%5 1 U+

RSS Limited



%5 1 V+

RSS Expanded



%5 1 W+

All Codes



%5 1 S+

None



%5 1 4+



Save Configuration



Start Configuration

## Operation

### Setup Insertion

#### Character Position to be Inserted

1. Scan Decimal Value in Appendix A first.



%520+

2. Complete

#### Characters to be Inserted

1. Scan ASCII Table in Appendix B first.



%530+

2. Complete



End Configuration

## Setup IR Sensor

### Setup IR Sensor (BS-9705 Only)

<Disable>



%0XH0

Enable



%0XH1



Save Configuration

# Appendix A

## Decimal Value

0



1



2



3



4



5



6



7



8



9



# Appendix B

## ASCII Tables

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  
  
1F

## ASCII Tables

SPACE



20

#



23

&amp;



26

)



29

,



2C

/



2F

2



32

5



35

8



38

;



3B

&gt;



3E

"



22

%



25

(



28

+



2B

.



2E

1



31

4



34

7



37

:



3A

=



3D

!



21

\$



24

'



27

\*



2A

-



2D

0



30

3



33

6



36

9



39

&lt;



3C

?



3F

# Appendix B

## ASCII Tables

@  
  
40

C  
  
43

F  
  
46

I  
  
49

L  
  
4C

O  
  
4F

R  
  
52

U  
  
55

X  
  
58

[  
  
5B

^  
  
5E

B  
  
42

E  
  
45

H  
  
48

K  
  
4B

N  
  
4E

Q  
  
51

T  
  
54

W  
  
57

Z  
  
5A

]  
  
5C

  
5D

A  
  
41

D  
  
44

G  
  
47

J  
  
4A

M  
  
4D

P  
  
50

S  
  
53

V  
  
56

































Y  
  
59

\  
  
5C

\_  
  
5F



## ASCII Tables

,		a
		
60	b	61
c		d
	62	
63	e	64
f		g
	65	
66	h	67
i		j
	68	
69	k	6A
l		m
	6B	
6C	n	6D
o		p
	6E	
6F	q	70
r		s
	71	
72	t	73
u		v
	74	
75	w	76
x		y
	77	
78	z	79
{		
	7A	
7B	}	7C
~		DEL
	7D	
7E		7F

# Appendix C

## Function Key Tables

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

