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## Introduction

Thank you for selecting Birch barcode input product, CD-108E CCD barcode reader. The reader is equipped with up to date optical technology. It auto-discriminates nearly twenty 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 of the CD-108E 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, CODABAR/NW7, Code 11, BC 412, MSI/PLESSEY, Code 93, China Postage, Code 32

## 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.

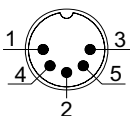
*If the installation is successful, the Green LED light on the top of the reader should light up, and you should hear three beeps from reader.*

# Pin Assignments

## 1. Keyboard Output

### DIN 5 MALE

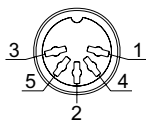
Pin No.	Function
1	HOST CLK
2	HOST DATA
4	GND
5	Vcc(+5V)



**DIN 5 Male**  
Pin Assignment

### DIN 5 FEMALE

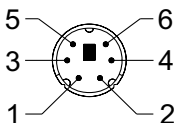
Pin No.	Function
1	KB CLK
2	KBDATA
4	GND
5	Vcc(+5V)



**DIN 5 Female**  
Pin Assignment

### MiniDIN 6 MALE

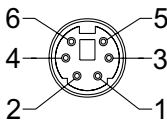
Pin No.	Function
1	HOST DATA
3	GND
4	Vcc
5	HOST CLK



**MiniDIN 6 Male**  
Pin Assignment

### MiniDIN 6 FEMALE

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

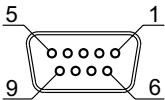


**MiniDIN 6 Female**  
Pin Assignment

## 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



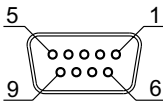
+5V +  - GND

**DB 9 Female Pin Assignment**

**Male DC Jack**

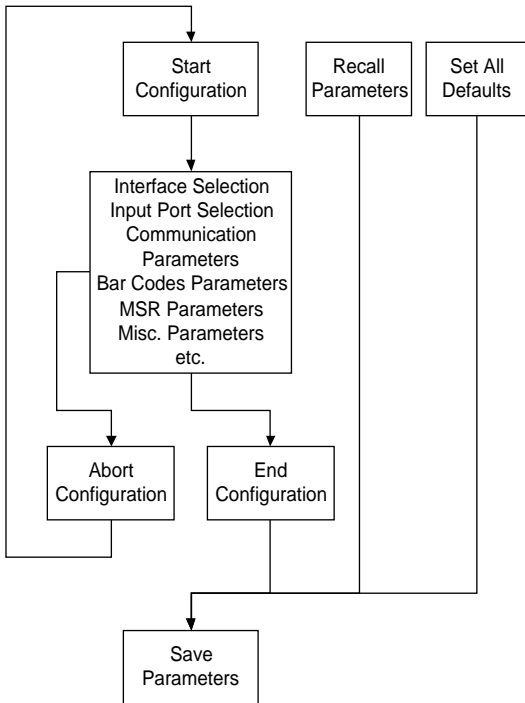
### 3. WAND Emulation Output DB 9 Female

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.

## Download/Upload Settings

This decoder offers an easy way to config all parameters from RS232 or PC keyboard interface. Just one click to download or upload configuration data instead of scanning bar codes in this menu.

Scan the Download/Upload bar code below to proceed downloading or uploading.

### Download/Upload





## 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



%00 U0

<Keyboard/USB Mode>



%00 U8

RS232 Mode



%00 M2

WAND Emulation



%00 M4

OCIA Mode

Reading Mode



End Configuration

Reading Mode

<Good Read OFF>



%0271

Trigger ON/OFF



%0270

Continuous/Trigger OFF



%0272

Continuous/No Trigger



%0273

Flash



%0274

Testing



%0275

Reserved1



%0276

Reserved2



%0277



Save Configuration



Start Configuration

## RS-232 Communication

### RS-232 Communication Parameters

#### Set Up BAUD Rate



%0Y70

600



%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



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

#### Time-out Between Characters



%0 070

<0 ms>



%0 071

5 ms



%0 072

10 ms



%0 073

25 ms



%0 074

50 ms



## Wand Emulation



End Configuration

### Wand Emulation

#### TTL Level Representation

<Bar equals High>



%02K4

Bar Equals Low



%02K0

#### Scan Speed Selection

<Fast>



%0288

Slow



%0280

#### Output Format Selection

<Output as Code 39>



%0208

Output as Code 39  
FullASCII



%0200



Save Configuration



Start Configuration

## OCIA Mode

### OCIA Mode Parameters

#### OCIA Mode Parameters

<NCR 8 Bit Format>



NCR 9 Bit Fomat



Spectra-Physics



Nixdorf



# Symbology



End Configuration

## Bar Code Type Selection

UPC-A

**<ON>**



%0A44

OFF



%0A40

UPC-E

**<ON>**



%0B08

OFF



%0B00

EAN-13/JAN-13

**<ON>**



%0A22

OFF



%0A20

EAN-8/JAN-8

**<ON>**



%0A11

OFF



%0A10

CODE 39

**<ON>**



%0E08

OFF



%0E00



Save Configuration



Start Configuration

## Symbology

### Bar Code Type Selection

#### CODE 128



%0 F08

<ON>



%0 F00

OFF

#### CODABAR/NW7



%0 J 08

<ON>



%0 J 00

OFF

#### Interleave 25



%0 G08

<ON>



%0 G00

OFF

#### Industrial 25



%0 H08

ON



%0 H00

<OFF>

#### Matrix 25



%0 I 08

ON



%0 I 00

<OFF>

# Symbology



End Configuration

## Bar Code Type Selection

### 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

BC412



ON



<OFF>

Reserved1



ON



<OFF>

Reserved2



ON



<OFF>

Reserved3



ON



<OFF>

Reserved4



ON



<OFF>

# Symbology



End Configuration

## Bar Code Type Selection

Reserved5

ON



%0 R08

<OFF>



%0 R00

Reserved6

ON



%0 S08

<OFF>



%0 S00

Select All Bar Codes



%1 A/ +



Save Configuration



Start Configuration

## Symbology

### UPC/EAN/JAN

#### Reading Type



%0 AK4

UPCA=EAN13 ON



%0 AK0

UPCA=EAN13<OFF>



%0 B88

ISBN Enable



%0 B80

ISBN <Disable>



%0 B44

ISSN Enable



%0 B40

ISSN <Disable>



%0 100

Decode with Supplementals



%0 108

<Autodiscriminate Supplementals>

#### Supplementals Set Up



%0 B33

<Not Transmit>



%0 B31

Transmit 2 Code



%0 B32

Transmit 5 Code



%0 B30

Transmit 2&5 Code



# 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



Save Configuration



Start Configuration

## Symbology

### Code 39

#### Type of Code



%0EH1

<Standard>



%0EH0

FullASCII



%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>

# Symbology



End Configuration

## 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>

# 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 G88

<Even>



%0 G80

Odd

# 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



# 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

## Symbology

### Matrix 25

#### Check Digit Transmission



%01 N3

<Do Not Calculate  
Check Digit>



%01 N7

Calculate Check  
Digit & Transmit



%01 N5

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

## Symbology



End Configuration

### 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



%0KN3

<Do Not Calculate  
Check Digit>



%0KN7

Calculate Check 1  
Digit & Transmit



%0KN5

Calculate Check 1 Digit  
& Not Transmit



%0KN6

Calculate Check 2  
Digits & Transmit



%0KN4

Calculate Check 2  
Digits & Not Transmit

# 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



# Symbology



End Configuration

## 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>



%4 L 1 +

Fix Length (2 Sets Available)

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



%4 L 0 0

1st Set Complete



%4 L 0 1

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



%4 L 0 0

2nd Set Complete



%4 L 0 2

Minimum Length

Begin(Then scan value  
in Appendix A)



%2 +- /

Complete



%2 C 7 +



Save Configuration



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

# Symbology



End Configuration

## 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

### BC 412

#### Check Digit Transmission



%0 ON3

Do Not Calculate  
Check Digit



%0 ON7

<Calculate Check  
Digit & Transmit>



%0 ON5

Calculate Check  
Digit & Not Transmit

# Symbology



End Configuration

## BC 412

### 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

### China Postage

#### Check Digit Transmission



**<Do Not Calculate  
Check Digit>**



Calculate Check  
Digit & Transmit



Calculate Check  
Digit & Not Transmit

## Symbology



End Configuration

### China Postage

#### 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 M1 +

Fix Length (2 Sets Available)

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



%4 M0 0

1st Set Complete



%4 M0 1

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



%4 M0 0

2nd Set Complete



%4 M0 2

Minimum Length

Begin(Then scan value  
in Appendix A)



%2 +- /

Complete



%2 C8 +



Save Configuration



Start Configuration

## Operation

### Language Selection



%0ZV0

**<US English>**



%0ZV1

UK English



%0ZV2

Italian



%0ZV3

Spanish



%0ZV4

French



%0ZV5

Germany



%0ZV6

Swedish



%0ZV7

Swiss



%0ZV8

Hungarian



%0ZV9

Japanese



**Operation**



End Configuration

### Language Selection

Belgium



%0ZVA

Portugal



%0ZVB

Demark



%0ZVC

Holland



%0ZVD

Reserved1



%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
BC412	O		
1st Track	X	2nd Track	Y
3rd Track	Z		

### 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+

Matrix 25



%@ 1 I+

CODE 93



%@ 1 K+

CODE 11



%@ 1 L+

China Postage



%@ 1 M+



Save Configuration



Start Configuration

## Operation

### Bar Code ID



%9 1 N+

MSI/PLESSEY



%9 1 O+

BC412



%9 1 0+

Mag. Track1



%9 1 1+

Mag. Track2



%9 1 2+

Mag. Track3



%9 1 C+

Reserved1



%9 1 D+

Reserved2



%9 1 P+

Reserved3



%9 1 Q+

Reserved4



%9 1 R+

Reserved5



%9 1 S+

Reserved6

Operation



End Configuration

### Misc. Parameters

#### Reading Level

Bar Equals High



%0312

<Bar Equals Low>



%0310

#### Accuracy

<1 Time>



%0130

2 Times



%0131

3 Times



%0132

4 Times



%0133

#### Sensitivity of Continuous Reading Mode

<Fast>



%0388

Slow



%0380



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



**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



%800+

2. 2nd Set



%801+

3. 3rd Set



%802+

4. 4th Set



%803+

5. 5th Set



%804+

6. 6th Set



%805+





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+

BC412



%8 1 O+

Resvered1



%8 1 C+

Resvered2



%8 1 D+

Resvered3



%8 1 P+

Resvered4



%8 1 Q+

Resvered5



%8 1 R+

Resvered6



%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 symboligy.
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

#### Symboligies 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+

BC412



%5 1 O+

Resvered1



%5 1 C+

Resvered2



%5 1 D+

Resvered3



%5 1 P+

Resvered4



%5 1 Q+

Resvered5



%5 1 R+

Resvered6



%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

# Appendix A

## Decimal Value



# 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



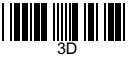
37

:



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

]



5D

A



41

D



44

G



47

J



4A

M



4D

P



50

S



53

V



56

Y



59

\



5C

\_



5F

## ASCII Tables



# Appendix C

## Function Key Tables

