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Chapter 1 Description

1.1 Introduction

The Decoder is an advanced and versatile decoding facility for barcoding systems. This manual provides an easy way to configure the decoding options and interface selections by scanning bar codes listed in the manual.

1.2 Codes Read

ALL UPC/EAN/JAN , Code 39, Code 39 Full ASCII, Code 128, Interleave 25, CODABAR/NW7

1.3 Installation

Installing the Keyboard Wedge Reader
To install the keyboard wedge reader, follow the steps below:

1. Turn off the power of PC or Terminal.
2. Unplug keyboard from PC or Terminal.
3. Make sure you have Y Cable with appropriate connector type for your PC or Terminal.
4. Connect Decoder into your PC or Terminal and its keyboard.
5. Turn on the power of PC or Terminal.

Installing the RS232 Reader
To install the RS232 reader, follow the steps below:

1. Turn off the power of PC or Terminal.
2. Make sure you have connector type for RS232, connect Decoder with your PC or Terminal.
3. Plug AC Adaptor or power cable into Decoder.
4. Turn on the power of PC or Terminal.

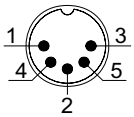
Installing the USB Reader
To install the USB Reader, plug the USB cable into the USB port of your PC or terminal.The USB reader will emulate a USB keyboard.

1.4 Pin Assignment

1. PC Keyboard Output

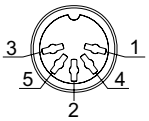
DIN 5 MALE

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



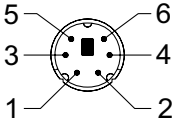
DIN 5 FEMALE

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



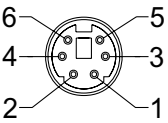
MiniDIN 6 MALE

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



MiniDIN 6 FEMALE

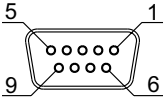
Pin No.	Function
1	KB DATA
3	GND
4	Vcc
5	KB CLK



2. RS-232 Output

DB 9 Female

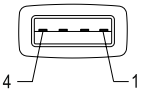
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
Power Lead	Vcc (+5V)



3. USB Interface

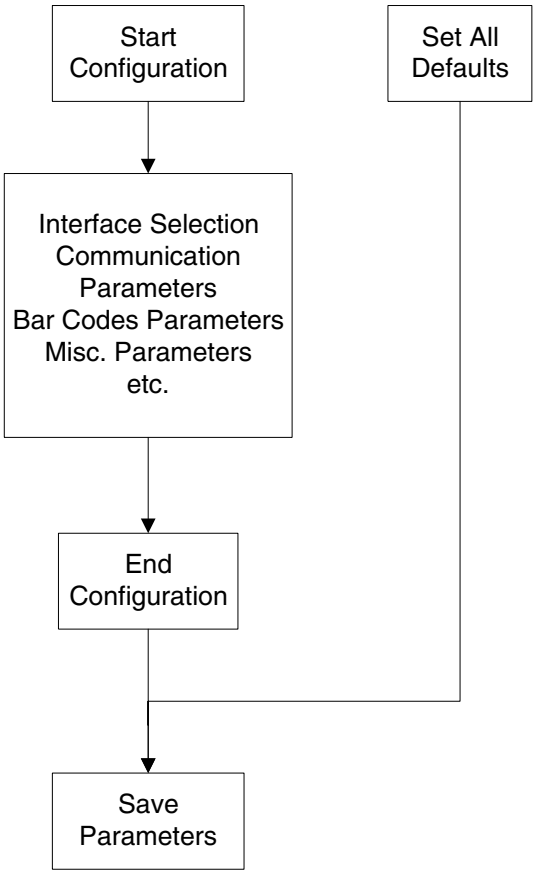
USB A Type Male

Pin No.	Function
1	Vcc
2	D-
3	D+
4	GND



Chapter 2 Configuration - General

2.1 Flow Chart



2.2 Loop of Programming

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

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

2.3 Factory Default Settings

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

By scanning "Set All Default" label, the settings will go back to the factory default settings.

2.4 Main Page of Configuration

Save Parameters

%$+/ 0

Set All Defaults

%$+/ 2

Start Configuration

%$+/ 3

End Configuration

%$+/ 4

Version Information

%$+/ 5

Save Parameters -
The parameter settings will be saved permanently.

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

Version Information -
Display the decoder version information and date code.

2.5 Interface Selection

Keyboard Mode

%0 G3 0

<RS232 Mode>

%0 G3 2

USB Mode

%0 G3 1

Ch.3 Communication Parameters

3.1 RS232 Mode Parameters

A> Set Up BAUD Rate

2400

%0AC0

4800

%0AC4

<9600>

%0AC8

19200

%0ACC

B> Set Up Data Bits

7 Data Bits

%0D80

<8 Data Bits>

%0D88

C> Set Up Stop Bits

<1 Bit>

%0DO8

2 Bits

%0DO0

D> Set Up Parity

<None>

%0DN7

Even

%0DN2

Odd

%0DN3

Mark

%0DN1

Space

%0DN0

E> Handshaking

<RTS/CTS Disable>

%0E80

RTS/CTS Enable

%0E88

<ACK/NAK Disable>

%0EH0

ACK/NAK Enable

%0EH1

<XON/XOFF Disable>

%0EI0

XON/XOFF Enable

%0EI2

3.2 Keyboard Wedge Mode Parameters

A> Terminal Type

<IBM PC/AT, PS/2>

%0A30

IBM PC/XT

%0A31

Apple Desktop Bus(ADB)

%0A32

NEC 9801

%0A33

B> Upper/Lower Case

<Upper Case>

%0D44

Lower Case

%0D40

C> Send Character by ALT Method

<Disable>

%0EK0

Enable

%0EK4

D> Select Numerical Pad

<OFF>

%0EO0

ON

%0EO8

3.3 Output Characters Parameters

A> Select Terminator

<CR+LF>

%0E72

None

%0E76

CR

%0E70

LF

%0E71

Space

%0E74

HT(TAB)

%0E73

STX-ETX

%0E75

B> Time-out Between Characters

<0 ms>

%0D20

15 ms

%0D22

Ch.4 Bar Codes and Others

4.1 Symboligies Selection

UPC-A **<ON>**

%0FO8

OFF

%0FO0

UPC-E **<ON>**

%0FK4

OFF

%0FK0

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

%0FI2

OFF

%0FI0

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

%0FH1

OFF

%0FH0

CODE 39 **<ON>**

%0F88

OFF

%0F80

CODE 128 **<ON>**

%0F44

OFF

%0F40

CODABAR/NW7 **<ON>**

%0F11

OFF

%0F10

Interleave 25 **<ON>**

%0F22

OFF

%0F20

4.2 UPC/EAN/JAN Parameters

A> Reading Type

UPCA=EAN13 <OFF>

%0 GO0

UPCA=EAN13 ON

%0 GO8

ISBN/ISSN <Disable>

%0 GH0

ISBN/ISSN Enable

%0 GH1

<Not Transmit Supplementals>

%0 GK0

Transmit Supplementals

%0 GK4

B> Check Digit Transmission

<Transmit Check Digit>

%0 GI 2

Not Transmit Check Digit

%0 GI 0

4.3 Code 39 Parameters

A> Reading Type

<Standard>

%0H22

Full ASCII

%0H20

B> Check Digit Transmission

<Do Not Calculate Check Digit>

%0HS4

Calculate Check Digit & Transmit

%0HSC

Calculate Check Digit & Not Transmit

%0HS8

C> Output Start/Stop Character

<Disable>

%0H10

Enable

%0H11

4.4 Code 128 Parameters

A> Check Digit Transmission

Do Not Calculate
Check Digit

%0HJ 1

Calculate Check
Digit & Transmit

%0HJ 3

**<Calculate Check Digit
& Not Transmit>**

%0HJ 2

4.5 CODABAR/NW7 Parameters

A> Set Up Start/Stop Characters Upon Transmission

<OFF>

%0G80

ON

%0G88

B> Transmission Type of Start/Stop

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

%0CVF

A Start

%0CV1

B Start

%0CV2

C Start

%0CV4

D Start

%0CV8

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

%0CFF

A Stop

%0CF1

B Stop

%0CF2

C Stop

%0CF4

D Stop

%0CF8

4.6 Interleave 25 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

%0HC4

Calculate Check Digit & Transmit

%0HCC

Calculate Check Digit & Not Transmit

%0HC8

B> 44+4 Function

<OFF>

%0D10

ON

%0D11

Ch.5 Miscellaneous Parameters

5.1 Language Selection

<US English>

%0AV0

UK English

%0AV1

Italian

%0AV2

Spanish

%0AV3

French

%0AV4

German

%0AV5

Swedish

%0AV6

Switzerland

%0AV7

Hungarian

%0AV8

Japanese

%0AV9

Belgium

%0AVA

Portuguese

%0AVB

Demark

%0AVC

Netherlands

%0AVD

Turkey

%0AVE

Reserved1

%0AVF

5.2 Bar Code ID

<OFF>

%0 G4 0

ON

%0 G4 4

UPC-A Begin

%2 K0 +

UPC-E Begin

%2 K1 +

EAN-13 Begin

%2 K2 +

EAN-8 Begin

%2 K3 +

Code 39 Begin

%2 K4 +

Code 128 Begin

%2 K5 +

Codabar Begin

%2 K7 +

Interleave 25 Begin

%2 K6 +

5.3 Set Up Truncation

A> Truncate Front Digit(s)

<Truncate Front 0 Digit>

%0BV0

Truncate Front 1 Digit

%0BV1

Truncate Front 2 Digits

%0BV2

Truncate Front 3 Digits

%0BV3

Truncate Front 4 Digits

%0BV4

Truncate Front 5 Digits

%0BV5

Truncate Front 6 Digits

%0BV6

Truncate Front 7 Digits

%0BV7

B> Truncate End Digit(s)

<Truncate End 0 Digit>

%0BF0

Truncate End 1 Digit

%0BF1

Truncate End 2 Digits

%0BF2

Truncate End 3 Digits

%0BF3

Truncate End 4 Digits

%0BF4

Truncate End 5 Digits

%0BF5

Truncate End 6 Digits

%0BF6

Truncate End 7 Digits

%0BF7

5.4 Set Up Preamble and Postamble

A> Set Up Preamble

<OFF>

%1I 0+

1.Begin

%1I 1+

2.ASCII Table
(Appendix B)

3.Complete

%1I 2+

There are 4 characters allowed to be added to the preamble. To set Preamble character(s):

1. Scan the "Start" label.
2. Scan "Begin" label above.
3. Go to ASCII Table in Appendix B, find the corresponding characters, scan the labels in Appendix B.
4. Back to the current page, scan the "Complete" label above.
5. Scan the "End" label.

B> Set Up Postamble

<OFF>

%1 J 0 +

1.Begin

%1 J 1 +

2.ASCII Table
(Appendix B)

3.Complete

%1 J 2 +

There are 4 characters allowed to be added to the postamble. To set Postamble character(s):

1. Scan the "Start" label.
2. Scan "Begin" label above.
3. Go to ASCII Table in Appendix B, find the corresponding characters, scan the labels in Appendix B.
4. Back to the current page, scan the "Complete" label above.
5. Scan the "End" label.

Appendix A ASCII Table

NULL
00

SOH
01

STX
02

ETX
03

EOT
04

ENQ
05

ACK
06

BEL
07

BS
08

HT
09

LF
0A

VT
0B

FF
0C

CR
0D

SO
0E

SI
0F

DLE
10

DC1
11

DC2
12

DC3
13

DC4
14

NAK
15

SYN
16

ETB
17

CAN
18

EM
19

SUB
1A

ESC
1B

FS
1C

GS
1D

RS
1E

US
1F

SPACE

20

!

21

"

22

#

23

$

24

%

25

&

26

'

27

(

28

)

29

*

2A

+

2B

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2C

-

2D

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2E

/

2F

0

30

1

31

2

32

3

33

4

34

5

35

6

36

7

37

8

38

9

39

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3A

;

3B

<

3C

=

3D

>

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

Save Parameters

%$+/ 0

Set All Defaults

%$+/ 2

Start Configuration

%$+/ 3

End Configuration

%$+/ 4

Version Information

%$+/ 5