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Chapter 1 Description

1.1 Notice

The manufacturer shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages in connection with the furnishing, performance, or use of this publication.

FCC Approval

This device had been test in accordance with the procedures given in ANSI C63.4 (1992) and confirmed to comply with the limits for a CLASS B digital pursuant to part 15 of the FCC Rules.

CE Standards


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 supplier and check the terms and conditions of the purchase.
1.2 Introduction

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

This menu provide an easy way to config the decoding options and interface selections by scanning bar codes listed in the menu.

1.3 Codes Read

Codes Read

1.4 Installation

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

Connecting the scanner –
Keyboard wedge/RS-232C/USB:
Connect the 10-pins RS-45 male connector into the bottom of the scanner and you will hear a “click” when the connection is made.
Power supply for RS-232C scanner–
There are 3 ways to supplying the power, use external +5V power supply, use optional power cable (KBDC) which taking the power from KB wedge or if the host supports +5V power from pin 9.

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

Switching cable –
Before removing the cable from the scanner, it is recommended that the power on the host system is off and the power supply has been disconnected from unit.

1. Find the small “Pin-hole” on the bottom of the unit.
2. Use a bended regular paperclip and insert the tip into the hole.
3. You will head a “click”, then gentle on the strain-relief of the cable and it will slide out of the scanner.
1.5 Pin Assignment

A> Input Port for Mini Decoder

<table>
<thead>
<tr>
<th>DB 9 Male</th>
<th>Pin No.</th>
<th>Function</th>
<th>Wand / Slot Reader</th>
<th>CCD / Laser Scanner</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N.C.</td>
<td></td>
<td></td>
<td>S.O.S.</td>
</tr>
<tr>
<td>2</td>
<td>DATA</td>
<td></td>
<td></td>
<td>DATA</td>
</tr>
<tr>
<td>3</td>
<td>N.C.</td>
<td></td>
<td></td>
<td>N.C.</td>
</tr>
<tr>
<td>4</td>
<td>N.C.</td>
<td></td>
<td></td>
<td>N.C.</td>
</tr>
<tr>
<td>5</td>
<td>N.C.</td>
<td></td>
<td></td>
<td>TRIGGER</td>
</tr>
<tr>
<td>6</td>
<td>N.C.</td>
<td></td>
<td></td>
<td>P.E.</td>
</tr>
<tr>
<td>7</td>
<td>GND</td>
<td></td>
<td></td>
<td>GND</td>
</tr>
<tr>
<td>8</td>
<td>SHIELD</td>
<td></td>
<td></td>
<td>SHIELD</td>
</tr>
<tr>
<td>9</td>
<td>+5V</td>
<td></td>
<td></td>
<td>+5V</td>
</tr>
</tbody>
</table>

B> Output Port

1. PC Keyboard Output

<table>
<thead>
<tr>
<th>DIN 5 MALE</th>
<th>Pin No.</th>
<th>Function</th>
<th>DIN 5 FEMALE</th>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HOST CLK</td>
<td></td>
<td>1</td>
<td>KB CLK</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>HOST DATA</td>
<td></td>
<td>2</td>
<td>KB DATA</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td></td>
<td>4</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Vcc(+5V)</td>
<td></td>
<td>5</td>
<td>Vcc(+5V)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MiniDIN 6 MALE</th>
<th>Pin No.</th>
<th>Function</th>
<th>MiniDIN 6 FEMALE</th>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HOST DATA</td>
<td></td>
<td>1</td>
<td>KB DATA</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
<td></td>
<td>3</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Vcc</td>
<td></td>
<td>4</td>
<td>Vcc</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>HOST CLK</td>
<td></td>
<td>5</td>
<td>KB CLK</td>
<td></td>
</tr>
</tbody>
</table>
2. **RS-232 Output**  
**DB 9 Female**  
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>TXD</td>
</tr>
<tr>
<td>3</td>
<td>RXD</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
</tr>
<tr>
<td>7</td>
<td>CTS</td>
</tr>
<tr>
<td>8</td>
<td>RTS</td>
</tr>
</tbody>
</table>

Power Lead: Vcc (+5V)

3. **WAND Emulation Output**  
**DB 9 Female**  
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>DATA</td>
</tr>
<tr>
<td>7</td>
<td>GND</td>
</tr>
<tr>
<td>9</td>
<td>Vcc (+5V)</td>
</tr>
</tbody>
</table>

4. **ADB Interface**  
**MiniDIN 4 MALE**  
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ADB</td>
</tr>
<tr>
<td>3</td>
<td>Vcc</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
</tr>
</tbody>
</table>

**MiniDIN 4 FEMALE**  
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ADB</td>
</tr>
<tr>
<td>3</td>
<td>Vcc</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
</tr>
</tbody>
</table>

5. **NEC 9801 Interface**  
**MiniDIN 8 MALE**  
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RST</td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>HOST RDY</td>
</tr>
<tr>
<td>4</td>
<td>HOST DATA</td>
</tr>
<tr>
<td>5</td>
<td>RTY</td>
</tr>
<tr>
<td>8</td>
<td>+5V</td>
</tr>
</tbody>
</table>

**MiniDIN 8 FEMALE**  
<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RST</td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>KB RDY</td>
</tr>
<tr>
<td>4</td>
<td>KB DATA</td>
</tr>
<tr>
<td>5</td>
<td>RTY</td>
</tr>
<tr>
<td>8</td>
<td>+5V</td>
</tr>
</tbody>
</table>
Chapter 2 Configuration - General

2.1 Flow Chart

Start Configuration

Recall Parameter

Set All Defaults

Interface Selection
  Input Port Selection
  Communication Parameters
  Bar Codes Parameters
  MSR Parameters
  Misc. Parameters
  etc.

Abort Configuration

End Configuration

Save Parameters
2.2 Loop of Programming

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

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

2.3 Factory Default Settings

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

By scanning "Set All Default" label, the settings will go back to the factory default settings.
2.4 Main Page of Configuration

Save Parameters

Recall Stored Parameters

Set All Defaults

Start Configuration

End Configuration

Abort Configuration

Version Information

Save Parameters -
The parameter settings will be saved permanently.

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

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

Abort Configuration -
Terminate current programming status.

Version Information -
Display the decoder version information and date code.
Chapter 3 Interface and Reading Mode Selection

3.1 Interface Selection

<Keyboard Mode>

- RS232 Mode
  - %0 U0

- WAND Emulation
  - %0 M2

- OCIA Mode
  - %0 M4

- USB Mode
  - %0 X08

3.2 Memory Function

<Enable>

- %0 X1 2

- Disable
  - %0 X1 0
3.3 Reading Mode Selection

<Good Read OFF>

Trigger ON/OFF

Continuous/Trigger OFF

Testing

Continuous/Auto Power On

Flash

Flash/Auto Power On

Reserved1

Reserved2

Reserved3

Reserved4

Reserved5
### Ch. 4 Communication Parameters

#### 4.1 RS232 Mode Parameters

**A> Set Up BAUD Rate**

<table>
<thead>
<tr>
<th>BAUD Rate</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>%Y70</td>
</tr>
<tr>
<td>1200</td>
<td>%Y71</td>
</tr>
<tr>
<td>2400</td>
<td>%Y72</td>
</tr>
<tr>
<td>&lt;9600</td>
<td>%Y73</td>
</tr>
<tr>
<td>4800</td>
<td>%Y74</td>
</tr>
<tr>
<td>19200</td>
<td>%Y75</td>
</tr>
<tr>
<td>38400</td>
<td>%Y76</td>
</tr>
</tbody>
</table>

**B> Set Up Data Bits**

<table>
<thead>
<tr>
<th>Data Bits</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Data Bits</td>
<td>%Y80</td>
</tr>
<tr>
<td>&lt;8 Data Bits&gt;</td>
<td>%Y88</td>
</tr>
</tbody>
</table>

**C> Set Up Stop Bits**

<table>
<thead>
<tr>
<th>Stop Bits</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 Bit&gt;</td>
<td>%Y8</td>
</tr>
<tr>
<td>2 Bits</td>
<td>%Y90</td>
</tr>
</tbody>
</table>
D> Set Up Parity

<None>

Even

Odd

Mark

Space

E> Handshaking

RTS/CTS Enable

<RTS/CTS Disable>

ACK/NAK Enable

<ACK/NAK Disable>

XON/XOFF Enable

<XON/XOFF Disable>
## 4.2 Keyboard Wedge Mode Parameters

**A> Terminal Type**

<table>
<thead>
<tr>
<th>IBM PC/AT, PS/2</th>
<th>%0ZF0</th>
<th>IBM PC/XT</th>
<th>%0ZF1</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM PS/2 25, 30</td>
<td>%0ZF2</td>
<td>NEC 9800</td>
<td>%0ZF3</td>
</tr>
<tr>
<td>Apple Desktop Bus(ADB)</td>
<td>%0ZF4</td>
<td>IBM 5550</td>
<td>%0ZF5</td>
</tr>
<tr>
<td>IBM 122 Key (1)</td>
<td>%0ZF6</td>
<td>IBM 102 Key</td>
<td>%0ZF7</td>
</tr>
<tr>
<td>IBM 122 Key (2)</td>
<td>%0ZF8</td>
<td>Reserved 1</td>
<td>%0ZF9</td>
</tr>
<tr>
<td>Reserved 2</td>
<td>%0ZFA</td>
<td>Reserved 3</td>
<td>%0ZFB</td>
</tr>
<tr>
<td>Reserved 4</td>
<td>%0ZFC</td>
<td>Reserved 5</td>
<td>%0ZFD</td>
</tr>
</tbody>
</table>
B> Upper/Lower Case

<No Change>

Upper Case

Lower Case

C> Send Character by ALT Method

Enable

<Disable>

D> Select Numerical Pad

ON

<OFF>
### 4.3 Output Characters Parameters

#### A> Select Terminator

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>None</td>
</tr>
<tr>
<td>LF</td>
<td>None</td>
</tr>
<tr>
<td>Space</td>
<td>None</td>
</tr>
<tr>
<td>HT(TAB)</td>
<td>None</td>
</tr>
<tr>
<td>STX-ETX</td>
<td>None</td>
</tr>
</tbody>
</table>
B> Time-out Between Characters

<0 ms>

5 ms

10 ms

25 ms

50 ms

100 ms

200 ms

300 ms
4.4 Wand Emulation Mode Parameters

A> TTL Level Representation

<Bar Equals High>

\[ \text{\%02K4} \]

Bar Equals Low

\[ \text{\%02K0} \]

B> Scan Speed Selection

<Fast>

\[ \text{\%0288} \]

Slow

\[ \text{\%0280} \]

C> Output Format Selection

<Output as Code 39>

\[ \text{\%0280} \]

Output as Code 39

\[ \text{Full ASCII} \]

Output as Original

\[ \text{Code Format} \]

\[ \text{\%0XK4} \]
4.5 OCIA Mode Parameters

<NCR 8 Bit Format>

Spectra-Physics

Nixdorf

NCR 9 Bit Format
5.1 Symbologies Selection

UPC-A <ON>

OFF

UPC-E <ON>

OFF

EAN-13/JAN-13 <ON>

OFF

EAN-8/JAN-8 <ON>

OFF

CODE 39 <ON>

OFF

CODE 128 <ON>

OFF

CODABAR/NW7 <ON>

OFF
5.2 UPC/EAN/JAN Parameters

A> Reading Type

UPCA=EAN13 ON

UPCA=EAN13<OFF>

ISBN Enable

ISBN <Disable>

ISSN Enable

ISSN <Disable>

Decode with Supplement

<Autodiscriminate Supplement>

B> Supplementals Set Up

<Not Transmit>

Transmit 2 Code

Transmit 5 Code

Transmit 2&5 Code
5.3 Code 39 Parameters

A> Type of Code

<Standard>

<table>
<thead>
<tr>
<th>%0 EH1</th>
<th>Full ASCII</th>
</tr>
</thead>
</table>

Italian Pharmacy/Code 32

<OFF>

| %0 E80 | Italian Pharmacy/Code 32 ON |

B> Check Digit Transmission

<Do Not Calculate Check Digit>

| %0 EM2 | Calculate Check Digit & Transmit |

Calculate Check Digit & Not Transmit

| %0 EM4 |

C> Output Start/Stop Character

Enable

| %0 E44 |

<Disable>

| %0 E40 |
5.3 Code 39 Parameters

A> Type of Code

<Standard>

Full ASCII

Italian Pharmacy/Code 32

<OFF>

Italian Pharmacy/Code 32 ON

B> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

C> Output Start/Stop Character

Enable

<Disable>
D> Decode Asterisk

Enable

<Disable>

E> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

<Variable>

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
5.4 Code 128 Parameters

A> Check Digit Transmission

Do Not Calculate Check Digit

Calculate Check Digit & Transmit

<Calculate Check Digit & Not Transmit>

B> Append FNC2

ON

<OFF>

C> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
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
5.5 Interleave 25 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

B> Set Up Number of Character

<Even>

Odd

C> Brazilian Banking Code

<Disable>

Enable
**D> Set Up Code Length**

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.

**<Variable>**

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
5.6 Industrial 25 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

B> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin  
   2. Decimal Value 
   (Appendix A) 
   3. 1st Set Complete

1. 2nd Set Begin  
   2. Decimal Value 
   (Appendix A) 
   3. 2nd Set Complete

Minimum Length
1. Begin  
   2. Decimal Value 
   (Appendix A) 
   3. Complete
5.7 Matrix 25 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

![Barcode Image]

Calculate Check Digit & Transmit

![Barcode Image]

Calculate Check Digit & Not Transmit

![Barcode Image]

B> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin
   2. Decimal Value (Appendix A)
   3. 1st Set Complete

1. 2nd Set Begin
   2. Decimal Value (Appendix A)
   3. 2nd Set Complete

Minimum Length
1. Begin
   2. Decimal Value (Appendix A)
   3. Complete
5.8 CODABAR/NW7 Parameters

A> Set Up Start/Stop Characters Upon Transmission

ON

ON

<OFF>

<OFF>

B> Transmission Type of Start/Stop

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

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

A Start

A Stop

B Start

B Stop

C Start

C Stop

D Start

D Stop
C> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.

<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin
2. Decimal Value (Appendix A)
3. 1st Set Complete

1. 2nd Set Begin
2. Decimal Value (Appendix A)
3. 2nd Set Complete

Minimum Length
1. Begin
2. Decimal Value (Appendix A)
3. Complete
5.9  Code 93 Parameters

A> Check Digit Transmission

<Calculate Check 2 Digits & Not Transmit>

Do Not Calculate Check Digit

B> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin
2. Decimal Value
   (Appendix A)
3. 1st Set Complete

1. 2nd Set Begin
2. Decimal Value
   (Appendix A)
3. 2nd Set Complete

Minimum Length
1. Begin
2. Decimal Value
   (Appendix A)
3. Complete
5.10 Code 11 Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check 1 Digit & Transmit

Calculate Check 1 Digit & Not Transmit

Calculate Check 2 Digits & Transmit

Calculate Check 2 Digits & Not Transmit

B> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
Fix Length (2 Sets Available)
1. 1st Set Begin
   2. Decimal Value
      (Appendix A)
   3. 1st Set Complete

1. 2nd Set Begin
   2. Decimal Value
      (Appendix A)
   3. 2nd Set Complete

Minimum Length
1. Begin
   2. Decimal Value
      (Appendix A)
   3. Complete
5.11 MSI/PLESSEY Code Parameters

A> Check Digit Transmission

<Do Not Calculate Check Digit>

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit

B> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
Fix Length (2 Sets Available)
1. 1st Set Begin
   1. Begin
   2. Decimal Value
      (Appendix A)
   3. 1st Set Complete

1. 2nd Set Begin
   1. Begin
   2. Decimal Value
      (Appendix A)
   3. 2nd Set Complete

Minimum Length
1. Begin
   1. Begin
   2. Decimal Value
      (Appendix A)
   3. Complete
5.12 BC 412 Code Parameters

A> Check Digit Transmission

Do Not Calculate Check Digit

Calculate Check Digit & Not Transmit

B> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin
   %4 O1 +
   %4 O0 0
2. Decimal Value
   (Appendix A)
   %4 O0 0
3. 1st Set Complete
   %4 O0 1

1. 2nd Set Begin
   %4 O0 0
2. Decimal Value
   (Appendix A)
   %4 O0 0
3. 2nd Set Complete
   %4 O0 2

Minimum Length
1. Begin
   %2 + - /
2. Decimal Value
   (Appendix A)
3. Complete
   %2 CA +
5.13 Code 2 of 6 Parameters

A> Check Digit Transmission

Do Not Calculate Check Digit

<Calculate Check Digit & Transmit>

Calculate Check Digit & Not Transmit

B> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
<Variable>

Fix Length (2 Sets Available)
1. 1st Set Begin
   2. Decimal Value (Appendix A)
   3. 1st Set Complete

1. 2nd Set Begin
   2. Decimal Value (Appendix A)
   3. 2nd Set Complete

Minimum Length
1. Begin
   2. Decimal Value (Appendix A)
   3. Complete

%4 P1+
%4 P00
%4 P1
%4 P00
%4 P01
%4 P02
%2 + - /
%2 CB+
5.14 Telepen Parameters

A> Type of Code

<Telepen ASCII>

Telepen Numeric

B> Check Digit Transmission

Do Not Calculate Check Digit

Calculate Check Digit & Transmit

C> Set Up Code Length

To set the fixed length:
1. Scan the "Begin" label of the desired set.
2. Go to the Decimal Value Tables in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set.

Repeat the steps 1 - 3 to set additional lengths.
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
Ch. 6 Miscellaneous Parameters
6.1 Language Selection

<US English>

UK English

Italian

Spanish

French

German

Swedish

Switzerland

Hungarian

Japanese
6.2 Bar Code ID

ON

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.

<table>
<thead>
<tr>
<th>Code Type</th>
<th>ID</th>
<th>Code Type</th>
<th>ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPC-A</td>
<td>A</td>
<td>UPC-E</td>
<td>B</td>
</tr>
<tr>
<td>EAN-8</td>
<td>C</td>
<td>EAN-13</td>
<td>D</td>
</tr>
<tr>
<td>CODE 39</td>
<td>E</td>
<td>CODE 128</td>
<td>F</td>
</tr>
<tr>
<td>Interleave 25</td>
<td>G</td>
<td>Industrial 25</td>
<td>H</td>
</tr>
<tr>
<td>Matrix 25</td>
<td>I</td>
<td>Codabar/NW7</td>
<td>J</td>
</tr>
<tr>
<td>CODE 93</td>
<td>K</td>
<td>CODE 11</td>
<td>L</td>
</tr>
<tr>
<td>China Postage</td>
<td>M</td>
<td>MSI/PLESSEY</td>
<td>N</td>
</tr>
<tr>
<td>BC412</td>
<td>O</td>
<td>Code 2 of 6</td>
<td>P</td>
</tr>
<tr>
<td>Telepen</td>
<td>T</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

User Define Code ID

To set the code ID:
1. Scan the symbologies label.
2. Go to the ASCII Tables in Appendix B, scan label that represents the desired code ID.

Note: User define code ID will override default value. Program will not check the conflict. It is possible to have more than two symbologies which have same code ID.
Code 2 of 6

Reserved4

Reserved5

Reserved6
6.3 Reading Level

Bar Equals High

<Bar Equals Low>

6.4 Accuracy

<1 Time>

2 Times

3 Times

4 Times

6.5 Buzzer Beep Tone

<High>

Medium

Low

Off
6.6 Sensitivity of Continuous Reading Mode

<Fast>

Slow

6.7 Notebook Function

Enable

<Disable>

6.8 Reverse Output Characters

<Disable>

Enable
6.9 Setup Deletion

To setup the deletion of output characters:

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

Repeat the steps 1 - 6 to set additional deletion.

A> Select Deletion Set Number

1. 1st Set

2. 2nd Set

3. 3rd Set

4. 4th Set

5. 5th Set

6. 6th Set
B> Symbologies Selection

UPC-A

EAN-13/JAN-13

CODE 39

CODABAR/NW7

Industrial 25

CODE 93

China Postage

UPC-E

EAN-8/JAN-8

CODE 128

Interleave 25

Matrix 25

CODE 11

MSI/PLESSEY
C> Character Position to be Deleted
1. Decimal Value  
   (Appendix A)  2. Complete

D> Number of Characters to be Deleted
1. Decimal Value  
   (Appendix A)  2. Complete
6.10 Setup Insertion

To setup the insertion of output characters:

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

Repeat the steps 1 - 6 to set additional insertion.

A> Select Insertion Set Number

1. 1st Set

   %5 0 0 +

2. 2nd Set

   %5 0 1 +

3. 3rd Set

   %5 0 2 +

4. 4th Set

   %5 0 3 +

5. 5th Set

   %5 0 4 +

6. 6th Set

   %5 0 5 +
### B> Symbologies Selection

<table>
<thead>
<tr>
<th>Symbology</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPC-A</td>
<td><img src="image" alt="UPC-A" /> %51A+</td>
</tr>
<tr>
<td>EAN-13/JAN-13</td>
<td><img src="image" alt="EAN-13/JAN-13" /> %51Y+</td>
</tr>
<tr>
<td>CODE 39</td>
<td><img src="image" alt="CODE 39" /> %51E+</td>
</tr>
<tr>
<td>CODABAR/NW7</td>
<td><img src="image" alt="CODABAR/NW7" /> %51J+</td>
</tr>
<tr>
<td>Industrial 25</td>
<td><img src="image" alt="Industrial 25" /> %51H+</td>
</tr>
<tr>
<td>CODE 93</td>
<td><img src="image" alt="CODE 93" /> %51K+</td>
</tr>
<tr>
<td>China Postage</td>
<td><img src="image" alt="China Postage" /> %51M+</td>
</tr>
<tr>
<td>UPC-E</td>
<td><img src="image" alt="UPC-E" /> %51B+</td>
</tr>
<tr>
<td>EAN-8/JAN-8</td>
<td><img src="image" alt="EAN-8/JAN-8" /> %51Z+</td>
</tr>
<tr>
<td>CODE 128</td>
<td><img src="image" alt="CODE 128" /> %51F+</td>
</tr>
<tr>
<td>Interleave 25</td>
<td><img src="image" alt="Interleave 25" /> %51G+</td>
</tr>
<tr>
<td>Matrix 25</td>
<td><img src="image" alt="Matrix 25" /> %51I+</td>
</tr>
<tr>
<td>CODE 11</td>
<td><img src="image" alt="CODE 11" /> %51L+</td>
</tr>
<tr>
<td>MSI/PLESSEY</td>
<td><img src="image" alt="MSI/PLESSEY" /> %51N+</td>
</tr>
</tbody>
</table>
BC412

Telepen

Resvered4

Resvered5

All Codes

None

C> Character Position to be Inserted

1. Decimal Value (Appendix A)

2. Complete

D> Characters to be Inserted

1. ASCII Table (Appendix B)

2. Complete
6.11 Setup IR Sensor

<Disable>

Enable
# Appendix A  Decimal Value Table

<table>
<thead>
<tr>
<th>Decimal Value</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>![Code for 0]</td>
</tr>
<tr>
<td>1</td>
<td>![Code for 1]</td>
</tr>
<tr>
<td>2</td>
<td>![Code for 2]</td>
</tr>
<tr>
<td>3</td>
<td>![Code for 3]</td>
</tr>
<tr>
<td>4</td>
<td>![Code for 4]</td>
</tr>
<tr>
<td>5</td>
<td>![Code for 5]</td>
</tr>
<tr>
<td>6</td>
<td>![Code for 6]</td>
</tr>
<tr>
<td>7</td>
<td>![Code for 7]</td>
</tr>
<tr>
<td>8</td>
<td>![Code for 8]</td>
</tr>
<tr>
<td>9</td>
<td>![Code for 9]</td>
</tr>
<tr>
<td>ASCII Code</td>
<td>Character</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>NULL</td>
<td>00</td>
</tr>
<tr>
<td>ETX</td>
<td>03</td>
</tr>
<tr>
<td>ACK</td>
<td>06</td>
</tr>
<tr>
<td>STX</td>
<td>02</td>
</tr>
<tr>
<td>ENQ</td>
<td>05</td>
</tr>
<tr>
<td>BS</td>
<td>08</td>
</tr>
<tr>
<td>VT</td>
<td>09</td>
</tr>
<tr>
<td>FF</td>
<td>0C</td>
</tr>
<tr>
<td>SI</td>
<td>0F</td>
</tr>
<tr>
<td>DC1</td>
<td>11</td>
</tr>
<tr>
<td>DC2</td>
<td>12</td>
</tr>
<tr>
<td>NAK</td>
<td>13</td>
</tr>
<tr>
<td>DC3</td>
<td>13</td>
</tr>
<tr>
<td>SYN</td>
<td>16</td>
</tr>
<tr>
<td>ETB</td>
<td>17</td>
</tr>
<tr>
<td>SUB</td>
<td>1A</td>
</tr>
<tr>
<td>GF</td>
<td>1B</td>
</tr>
<tr>
<td>RS</td>
<td>1E</td>
</tr>
<tr>
<td>SOH</td>
<td>01</td>
</tr>
<tr>
<td>EOT</td>
<td>04</td>
</tr>
<tr>
<td>BEL</td>
<td>07</td>
</tr>
<tr>
<td>LF</td>
<td>0A</td>
</tr>
<tr>
<td>CR</td>
<td>0D</td>
</tr>
<tr>
<td>DLE</td>
<td>10</td>
</tr>
<tr>
<td>US</td>
<td>1F</td>
</tr>
</tbody>
</table>

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

DEL
Appendix C  Function Key Table

F1  F2
F3  F4
F5  F6
F7  F8
F9  F10
F11  F12
insert  delete
home
page up  page down
end
left  right
up  down