

# Ez One Shot<sup>®</sup>

## 1D SCAN ENGINE USER'S MANUAL



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# CLONING MODE

## WHAT IS CLONING MODE?

CLONING duplicates a scanner's settings in other scanners. It can save time when a number of scanners must be programmed to the same settings.

## HOW SHOULD CLONING WORK?

1. Using this guide, make all the necessary settings for one wand.
2. Scan the CLONING MODE bar code shown below.
3. When CLONING MODE is scanned, all setup parameters will be converted to alphanumeric characters and shown on the monitor.
4. Using a bar code printer, print out all the setup parameters as Code 39 bar code labels.
5. Scan the printed labels sequentially with each wand to be programmed.



## NOTES:

1. All cloning strings are upper case.
2. All cloning strings printed on labels should be the same as those on the monitor sequentially from first to last.
3. Cloning mode works in Word Note Pad only.
4. Never edit the data on the first row (.A017\$). It is an entry command for cloning.
5. The cloning string's length can be adjusted by combining multiple strings into one, or by breaking one string into multiple strings starting from the second row after "....". Length must be in sequences of four, such as 4, 8, 12, 16, 20 (MAX).
6. Be sure to print the dots exactly where they are shown on the monitor.

## FORMAT OF CLONING

\* Format of Cloning:

1st row >>> ".A017\$" ( never edit any data of the first row )

2nd row >>> "....XXXX" you can adjust the String's Length starting from the dots "...." forward. The length of the string should be in 4, 8, 12, 16 or 20 ( MAX ) digits.

3rd row ~ so on >>> XXXX

End row - A dot "." Is the ending of cloning.

XXXX Stands for any string

# CLONING MODE

## EXAMPLE :

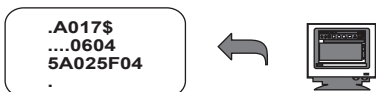
### 1. PROJECT ASSIGNMENTS:

- 1.1. Beep tone: **BEEP LOW -- HIGH.**
- 1.2. Capslock Mode: **CAPSLOCK ON.**
- 1.3. Reading Mode: **CONTINUOUS AUTO OFF.**

### 2. SETTING PROCEDURE:

- 2.1. Scan **BEEP LOW -- HIGH (GROUP 3).**
- 2.2. Scan **CAPSLOCK ON (GROUP 12).**
- 2.3. Scan **CONTINUOUS AUTO OFF (GROUP2).**

3. All parameters will be converted to alphanumeric characters and shown on the monitor.



4. Print the results shown on the monitor as bar codes with a bar code printer. The bar codes should be in the Code 39 symbology.



5. Scan these labels with any of the wands that must be programmed with the same settings as the first wand. Be sure to scan from the first row to the second and so on sequentially, top to bottom.

## CORRECT SETTING

|         |   |       |
|---------|---|-------|
| .A017\$ |   |       |
| ....    | 4 |       |
| 0604    | 4 |       |
| 5A02    | 4 |       |
| 5F04    | 4 |       |
| .       |   | (Dot) |

|              |     |       |
|--------------|-----|-------|
| .A017\$      |     |       |
| ....06045A02 | 12  |       |
| 5F04.        | 4+. | (Dot) |

## WRONG SETTING

|         |   |                |                                                                                                                            |
|---------|---|----------------|----------------------------------------------------------------------------------------------------------------------------|
| .A017\$ |   |                |                                                                                                                            |
| ..      | ← | Wrong Setting: | The string "..." consists of 4 Dots, located at the beginning of second row; do not break the "..." into multiple strings. |
| ..0604  |   |                |                                                                                                                            |
| 5A02    |   |                |                                                                                                                            |
| 5F04    |   |                |                                                                                                                            |
| .       |   |                |                                                                                                                            |

|           |         |                |                                                                                                                                       |
|-----------|---------|----------------|---------------------------------------------------------------------------------------------------------------------------------------|
| .A017\$   | ✓       |                |                                                                                                                                       |
| ....06045 | 9 x }   | Wrong Setting: | The string lengths of the second and third row do not match the length requirements, because rows should be in length of four digits. |
| A025F04   | 7 x }   |                |                                                                                                                                       |
| .         |         |                |                                                                                                                                       |
|           | (Dot) ✓ |                |                                                                                                                                       |

|             |         |                                                  |                                              |
|-------------|---------|--------------------------------------------------|----------------------------------------------|
| .A017\$.... | X ←     | Wrong Setting because you add                    | "...." after .A017\$:                        |
| 0604        | 4 ✓     | The .A017\$ is a FIXED parameter to              | enter setup procedure. It is an unchangeable |
| 5A02        | 4 ✓     | parameter. <b>Never add, delete or rearrange</b> | <b>data from the FIRST row.</b>              |
| 5F04.       | 4+.     |                                                  |                                              |
|             | (Dot) ✓ |                                                  |                                              |

# HOW TO SET PARAMETERS

## How do you program a scanner with this user's guide?

1. Use the scanner to scan at the bar code representing the function/parameter you want to set.
2. When you hear two beeps, the new settings have been defined or updated into the memory processor.

Default parameters are indicated in bold type and underlined characters. The character font is ARIAL BLACK. CD = Check Digit. CDV = Check Digit Verification.

Most settings require only a single bar code, but a few need several different bar codes (multi-step configuration) to be scanned in order to completely define a setting. They are:

### **Preamble / Postamble (maximum 16 digits)**

Step 1: Scan CLR PRE/POSTAMBLE.

Step 2: Scan PREAMBLE or POSTAMBLE.

Step 3: Scan any alphanumeric from Full ASCII Table in Group 36-47

Step 4: Scan PREAMBLE or POSTAMBLE.

### **Min Length / Max Length**

Step 1: Scan MIN LENGTH or MAX LENGTH.

Step 2: Scan two digits from Full ASCII numeric table in Group 44

Step 3: Scan MIN LENGTH or MAX LENGTH.

### **Accuracy Adjustment**

Step 1: Scan ACCURACY ADJUSTMENT.

Step 2: Scan one digit from GROUP 5

Step 3: Scan ACCURACY ADJUSTMENT.

### **Set Code ID (Example: Code 39)**

Step 1: Scan CODE 39 SET ID from Group 8

Step 2: Scan either one or two alphanumerics (maximum 2 digits)  
from Full ASCII table in Group 36-44

Step 3: Scan CODE 39 SET ID from Group 8

### **Set A Data - (CX-Codabar, ABC Codabar, Codabar Coupling).**

Step 1: Scan SET INSERT DATA.

Step 2: Scan one alphanumeric character from Full ASCII Table in Group 36-44

Step 3: Scan SET INSERT DATA.

## **NOTES:**

1. The scanner will beep three times as a reminder that a setting is not yet complete.
2. If you make a mistake, forget a step, etc., scan RESET to start again.

**RESET**



# GROUP-1

## GENERAL SETTINGS

---

### DEFAULT

.A001\$



\*Reset to factory default

---

### CHECK VERSION

.A007\$



\*Check firmware version

---

### RESET/ ABORT

.P023\$



\* Abort multi-step configuration

---

### SETUP CODE READ

.B015\$



**SETUP CODE ON**

.B016\$



SETUP CODE OFF

\* Caution: Scanning SETUP CODE OFF will turn the scanner into unprogrammable state and the scanner will not react to any configuration barcode!

# GROUP-2

## GENERAL SETTINGS - READING MODE

---

. F005\$



CONTINUOUS MODE

- \* LED is always on.
- \* The trigger does not function in Continuous Mode.

. F001\$



FLASH MODE

- \* The LED is on steady if a bar code is close to the scanner, but starts flashing if no bar code is detected after 60 seconds.
- \* The trigger does not function in Flash Mode.

. F002\$



TRIGGER MODE

- \* The LED will light when the trigger is pressed.
- \* The LED will go off when the trigger is released.

. F006\$



CONTINUOUS AUTO OFF

- \* The LED is always on when the trigger is pressed.
- \* The LED will go off if no bar code has been detected after 60 seconds.

. F003\$



TOGGLE MODE

- \* The LED is always on when the trigger is pressed.
- \* The LED will go off if one bar code is read.

. F004\$



TEST MODE

- \* Factory Scanability Test Use Only

### NOTES:

1. To extend the scanner's life, keep the scanner set to Trigger Mode or Continuous Auto Off Mode.
2. The LED indicator will glow for GOOD READ.

# GROUP-3

## GENERAL SETTINGS

---

### BEEP TONE

.F019\$



BEEP HIGH

.F021\$



BEEP HIGH-LOW

.F018\$



BEEP MEDIUM

.F012\$



BEEP OFF

.F020\$



BEEP LOW-HIGH

.F022\$



BEEP LOW

---

### TERMINATOR

.D010\$



NONE

.D011\$



LF

.D012\$



CR

.D013\$



CR+LF

.D014\$



TAB

.D015\$



SPACE

.D016\$



ESC

### NOTES:

Below is the position of Terminator among output data string:

[Preamble] [Symbology ID] [Barcode Length] [Barcode Data] [Postamble] **[Terminator]**

By default, with Preamble, Postamble, Barcode Length and Symbology ID disabled, the scanner data output will be:

[Barcode Data] **[Terminator]**

1. For the USB interface the default terminator is CR.
2. For the RS232 interface the default terminator is CR+LF.



# GROUP-4

SEND DATA LENGTH, PREAMBLE & POSTAMBLE.

---

## SEND DATA LENGTH

.D019\$



SEND DATA LENGTH ON

.D020\$



SEND DATA LENGTH OFF

---

## PREAMBLE & POSTAMBLE ( PREFIX AND SUFFIX )

.A011\$



CLEAR PRE/ POSTAMBLE

.A012\$



PREAMBLE (16)

.A013\$



POSTAMBLE (16)

### EXAMPLE:

Set PREAMBLE String as “##”

POSTAMBLE String as “\$\$”

### SETTING PROCEDURE:

STEP 1 : Scan : CLEAR PRE/ POSTAMBLE.

STEP 2 : Scan : PREAMBLE.

STEP 3 : Scan : “#” twice from FULL ASCII Table.

STEP 4 : Scan : PREAMBLE.

STEP 5 : Scan : POSTAMBLE.

STEP 6 : Scan : “\$” twice from FULL ASCII Table.

STEP 7 : Scan : POSTAMBLE.

### DATA FORMAT:

[Preamble] [Symbology ID] [Barcode Length] [Barcode Data] [Postamble] [Terminator]

### NOTES:

1. A PREAMBLE is a string of up to 16 characters added to the beginning of a scanned barcode.
2. A POSTAMBLE is a string of up to 16 characters added to the end of a scanned barcode.
3. Default value for both: None.

# GROUP-5

## GENERAL SETTINGS - ACCURACY ADJUSTMENT

---



---

### ACCURACY ADJUSTMENT



Accuracy Adjustment assures a more reliable decoded output. Enabling the feature and setting a number from 1 to 9 subjects the decoded output a higher standard of accuracy. The higher the number, the greater the accuracy.

---

#### SETTING PROCEDURE:

1. Scan **ACCURACY ADJUSTMENT**.
2. Scan one digit (1~9) from barcode menu above.
3. Scan **ACCURACY ADJUSTMENT**.

**RESET**



#### NOTES:

1. The scanner will beep three times as reminder that a setting is not yet complete.
2. If you make a mistake, forget a step, etc., scan **RESET** to start again.

# GROUP-6

## GENERAL SETTINGS

### ENABLE INVERSE BARCODE

.D021\$



#### DISABLE INVERSE BARCODE

(READS POSITIVE BARCODE ONLY)

.D022\$



#### ENABLE INVERSE BARCODE

(READS POSITIVE & NEGATIVE BARCODES)

### ENABLE CODE ID

.A008\$



FACTORY ID ON

.A014\$



AIM ID ON

.A015\$



SET ID ON

### DISABLE CODE ID

.A009\$



### NOTES:

1. Only ONE code ID will be sent.
2. The code ID is located at the position before the bar code data and after the preamble.

### EXAMPLE :

- 1.Preamble 145287,
- 2.Code ID: enable AIM ID,
- 3.Bar code symbologies : EAN 13+5

145287

Preamble  
145287

JE0

CODE ID  
AIM ID : JE0

4563987123453

BARCODE / DATA  
EAN 13 +5



12411

OUTPUT : 145287JE0456398712345312411

# GROUP-7

## GENERAL SETTINGS

| SYBBOLOGIES CODE ID IDENTIFIER |            |              |                                       |            |              |
|--------------------------------|------------|--------------|---------------------------------------|------------|--------------|
| Symbologies                    | Factory ID | AIM ID (new) | Symbologies                           | Factory ID | AIM ID (new) |
| EAN 128                        | T          | JC1          | MSI                                   | O          | JM0          |
| Code 128                       | K          | JC0          | MSI(MOD 10 / CDV & not send CD)       |            | JM1          |
| EAN8(+2/+5 OFF)                | S          | JE4          | Code 32                               | B          | JX0          |
| EAN8(+2 ON)                    |            | JE4          | Codabar                               | N          | JF0          |
| EAN8(+5 ON)                    |            | JE4          | Codabar(ABC Codabar)                  |            | JF1          |
| UPC-E(+2/+5 OFF)               | E          | JE0          | Codabar(CDV & Send CD)                |            |              |
| UPC-E(+2 ON)                   |            | JE3          | Codabar(CDV & not send CD)            | JF4        |              |
| UPC-E(+5 ON)                   |            | JE3          | UK Plessey                            | P          |              |
| UPC-A(+2/+5 OFF)               | A          | JE0          | Matrix 2 of 5                         | Y          | JX0          |
| UPC-A(+2 ON)                   |            | JE3          | Full ASCII Code 39(disable CDV)       | D          | JA4          |
| UPC-A(+5 ON)                   |            | JE3          | Full ASCII Code 39(CDV & send CD)     |            | JA5          |
| EAN-13(+2/+5 OFF)              | F          | JE0          | Full ASCII Code 39(CDV & not send CD) |            |              |
| EAN-13(+2 ON)                  |            | JE3          | Standard Code 39(disable CDV)         | M          | JA0          |
| EAN-13(+5 ON)                  |            | JE3          | Standard Code 39(CDV & send CD)       |            | JA1          |
| Code 93                        | L          | JG0          | Standard Code 39(CDV & not send CD)   |            |              |
| Code 11(disable CDV)           | J          | JH0          | Interleaved 2 of 5(CDV & send CD)     | I          | J11          |
| Code 11(send one CD)           |            | JH0          | Interleaved 2 of 5(CDV & not send CD) |            | J13          |
| Code 11(send two CD)           |            | JH1          | Interleaved 2 of 5(disable CDV)       |            | J10          |
| Code 11(not send CD)           |            | JH3          | Databar                               |            |              |
| Telepen(ASCII)                 | U          | JB0          | Databar Stacked                       | G          | Je0          |
| Telepen(Numeric)               |            | JB1          | Databar Stacked Omnidirectional       |            |              |
| IATA 2 of 5                    | R          | JR0          | Databar Truncated                     |            |              |
| Industrial 2 of 5              | V          | JS0          | Databar Limited                       | C          |              |
| China Post Code                | H          | JX0          | Databar Expanded                      | Q          |              |
| PDF417                         | Z          | JE0          | Databar Expanded Stacked              |            |              |

## SET ID - SETTING PROCEDURES

Steps:

1. Scan the SET ID bar code for a particular symbology.
2. Scan one or two alphanumeric characters from the Full ASCII Table.
3. Scan the SET ID bar code again.

**Example: Define the MSI Code ID = A, Code 93 = G9**

**MSI :**

**Step1: Scan MSI Set ID (Group 9).**

**Step2: "A" from Group 40.**

**Step3: Scan MSI Set ID (Group 9).**

**Code 93:**

**Step1: Scan Code 93 Set ID (Group8).**

**Step2: "G" from Group 40, Scan "9" from Group 44.**

**Step3: Scan Code 93 Set ID (Group8).**

### NOTES:

1. The length of a Code ID is either one or two characters. If one character is set, the Code ID output will be one character. If two characters are set, the Code ID output will be two characters.
2. Only one type of Code ID will be sent.

# GROUP-8

## GENERAL SETTINGS - SET CODE ID

---

. P001\$



EAN 13 Set ID

. P002\$



EAN 8 Set ID

. P003\$



UPC E Set ID

. P004\$



UPC A Set ID

. P005\$



Code 39 Set ID

. P013\$



Code 93 Set ID

. P007\$



Codabar Set ID

. P021\$



IATA Set ID

. P010\$



Code 128 Set ID

. P016\$



EAN 128 Set ID

. P022\$



Telepen Set ID

. P009\$



Code 11 Set ID

. P011\$



Code 32 Set ID

. P012\$



China Post Code  
(TOSHIBA Code) Set ID

# GROUP-9

## GENERAL SETTINGS - SET CODE ID

---



### SETTING PROCEDURE:

1. Scan Set ID
2. Scan either one or two alphanumerics (maximum 2 digits) from Full ASCII table in Group 36-44
3. Scan Set ID



### NOTES:

1. The scanner will beep three times as reminder that a setting is not yet complete.
2. If you make a mistake, forget a step, etc., scan RESET to start again.

# GROUP-10

## GENERAL SETTINGS

---

### INTERBLOCK DELAY

|                                                                                               |            |
|-----------------------------------------------------------------------------------------------|------------|
| . B001\$<br> | <u>0mS</u> |
| . B002\$<br> | 10mS       |
| . B003\$<br> | 50mS       |
| . B004\$<br> | 100mS      |
| . B005\$<br> | 200mS      |
| . B006\$<br> | 500mS      |

---

### INTERCHARACTER DELAY

|                                                                                                 |              |
|-------------------------------------------------------------------------------------------------|--------------|
| . B010\$<br> | <u>140uS</u> |
| . B011\$<br> | 500uS        |
| . B012\$<br> | 1mS          |
| . B013\$<br> | 4mS          |
| . B014\$<br> | 16mS         |

# GROUP-11

## GENERAL SETTINGS

---

### KEYBOARD LAYOUT

. C010\$



ENGLISH (USA)

. C018\$



ENGLISH (UK)

. C012\$



FRENCH

. C011\$



GERMAN

. C014\$



ITALIAN

. C013\$



SPANISH

. C017\$



CZECH (QWERTY)

. C022\$



CZECH (QWERTZ)

. C021\$



HUNGARIAN (QWERTZ)

. C024\$



HUNGARIAN (101 KEY)

. C016\$



SWISS (GERMAN)

. C023\$



SWISS (FRENCH)

. C009\$



JAPAN (106 key)

. C025\$



CANADIAN (FRENCH)

. C034\$



CANADIAN (TRADITIONAL)

. C029\$



NORWEGIAN

. C026\$



SWEDISH

. C031\$



PORTUGUESE

. C030\$



BELGIAN (AZERTY)

. C028\$



DUTCH

. C027\$



DANISH

. C032\$



SLOVAK

. C033\$



BRAZILIAN (PORTUGUESE)

. C015\$



ALT CODE



# GROUP-12

## GENERAL SETTINGS

---

### CAPITAL LOCK MODE



### NOTE:

1. When barcode scanner is set to Caplock Free mode, no matter keyboard Capslock LED indicator is ON or OFF, output will be always the same as the Original barcode. In other words, what you see is what output is.(CODABAR is the exception)
2. If ABCD/ ABCD, abcd/ abcd, ABCD/T\*E, abcd/tn\*e are on, they work independently according to their rules.

### NUMERIC KEY



# GROUP-13

## INTERFACE SELECTION

. C008\$



USB HID

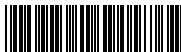
. C006\$



USB VCP

### INTERFACES SELECTION

. C002\$



UART

| SYMPTOMS                                               | SOLUTION                                                                                                                                                                                                                                        |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The scanner does not scan when the trigger is pressed. | <ol style="list-style-type: none"><li>1. Unplug the cable from the host computer.</li><li>2. Plug the cable back into the host computer.</li><li>3. Set the scanner to the correct interface. The cable needs to match the interface.</li></ol> |

#### Caution:

1. This scanner is designed to switch easily between interface options. To switch from one interface to another, the appropriate cable must be installed. After changing to a new cable, be sure to reset the interface setting as appropriate.
2. Before switching to USB VCP, please make sure you have installed proper driver on PC. The driver is available either on our website or from your local distributor.

# GROUP-14

## ADVANCED READING MODE SETTINGS

---

### LED AUTO OFF CONTROL (TRIGGER & TOGGLE MODE)

. F038\$



LED AUTO OFF DISABLE

. F039\$



LED AUTO OFF ENABLE

#### NOTES:

1. When enabled, LED will automatically go off after LED Auto Off Timeout elapses.
- 

### LED AUTO OFF TIMEOUT (TRIGGER & TOGGLE MODE)

. F043\$



LED AUTO OFF TIMEOUT

#### STEPS:

1. Scan LED AUTO OFF TIMEOUT
  2. Scan two digits (01~60) from Full ASCII Code39 numeric table (unit = 1 sec, range = 1 sec ~ 60 sec, Default = 3 sec)
  3. Scan LED AUTO OFF TIMEOUT
- 

### TRIGGER CONTROL (FLASH, CONTINUOUS & TEST MODE)

. F036\$



TRIGGER CONTROL DISABLE

. F037\$



TRIGGER CONTROL ENABLE

#### NOTES:

1. When enabled, LED can be switched on/off by pressing trigger.
- 

### IDENTICAL READ TIMEOUT (FLASH, CONTINUOUS & CONTINUOUS AUTO OFF MODE)

. F040\$



IDENTICAL READ TIMEOUT

#### NOTES:

1. The timeout will start counting only after the scanned barcode is removed from the aimer of scanner. If you want to read the same barcode continuously without any timeout, please use Test Mode.

#### STEPS (for MT10, MT40(W), MT780):

1. Scan IDENTICAL READ TIMEOUT
2. Scan two digits (01~50) from Full ASCII Code39 numeric table (unit = 100mS, range = 100mS ~ 5000mS, Default = 1000mS)
3. Scan IDENTICAL READ TIMEOUT

#### STEPS (for other models):

1. Scan IDENTICAL READ TIMEOUT
2. Scan two digits (1~5) from Full ASCII Code39 numeric table (unit = 1 sec, range = 1 sec ~ 5 sec, Default = 1 sec)
3. Scan IDENTICAL READ TIMEOUT

# GROUP-15

## ADVANCED READING MODE SETTINGS

---

### FLASH TIMEOUT (FLASH MODE)

. F041\$



FLASH TIMEOUT

#### STEPS:

1. Scan FLASH TIMEOUT
  2. Scan two digits (03~60) from Full ASCII Code39 numeric table  
(unit = 1 sec, range = 3 sec ~ 60 sec, Default = 60 sec)
  3. Scan FLASH TIMEOUT
- 

### LED AUTO OFF TIMEOUT (CONTINUOUS AUTO OFF MODE)

. F042\$



FLASH TIMEOUT

#### STEPS:

1. Scan LED AUTO OFF TIMEOUT
2. Scan two digits (03~60) from Full ASCII Code39 numeric table  
(unit = 1 sec, range = 3 sec ~ 60 sec, Default = 60 sec)
3. Scan LED AUTO OFF TIMEOUT

# GROUP-16

## UART SETTINGS

---

### BAUD RATE

.E001\$



300

.E002\$



600

.E003\$



1200

.E004\$



2400

.E005\$



4800

.E006\$



9600

.E007\$



19200

.E022\$



38400

### DATA BITS & PARITY

.E008\$



8 Bits None

.E009\$



8 Bits EVEN

.E010\$



8 Bits ODD

.E011\$



8 Bits MARK

.E012\$



8 Bits SPACE

.E013\$



7 Bits EVEN

.E014\$



7 Bits ODD

.E015\$



7 Bits MARK

.E021\$



7 Bits SPACE

# GROUP-17

## UART SETTINGS

---

### STOP BITS

. E016\$



1 STOP BIT

. E017\$



2 STOP BITS

---

### HANDSHAKING

. E018\$



NONE

. E019\$



RTS enable at Power on

. E020\$



RTS enable with Communication

---

### ACK / NAK

. E023\$



ON

. E024\$



OFF

---

### FLOW CONTROL: TIME OUT

. E025\$



1 Sec

. E026\$



3 Sec

. E027\$



10 Sec

. E028\$



Unlimited

---

### BCC

. E029\$



RS232 BCC Char On

. E030\$



RS232 BCC Char Off

# GROUP-18

## ENABLE/ DISABLE SYMBOLOGIES

---

### ENABLE

. A002\$



ENABLE ALL CODE

. K010\$



CODE 32

. K001\$



CHINA POSTAL CODE

. L010\$



UK PLESSEY CODE

. N001\$



INDUSTRIAL 2 OF 5

. M010\$



MATRIX 2 OF 5

. J001\$



INTERLEAVED 2 OF 5

. J010\$



CODE 128

. I001\$



CODABAR

. L014\$



TELEPEN

### DISABLE

. A003\$



DISABLE ALL CODE

. K011\$



CODE 32

. K002\$



CHINA POSTAL CODE

. L011\$



UK PLESSEY CODE

. N002\$



INDUSTRIAL 2 OF 5

. M011\$



MATRIX 2 OF 5

. J002\$



INTERLEAVED 2 OF 5

. J011\$



CODE 128

. I002\$



CODABAR

. L015\$



TELEPEN

# GROUP-19

ENABLE/ DISABLE SYBLOGIES

---

## ENABLE

. H001\$



UPC-A

. H007\$



UPC-E

. H019\$



EAN-8

. H013\$



EAN-13

. L001\$



MSI

. G008\$



CODE 39

. I010\$



CODE 11

. G010\$



CODE 93

. M001\$



EAN-128

. N017\$



IATA

## DISABLE

. H002\$



UPC-A

. H008\$



UPC-E

. H020\$



EAN-8

. H014\$



EAN-13

. L002\$



MSI

. G009\$



CODE 39

. I011\$



CODE 11

. G011\$



CODE 93

. M002\$



EAN-128

. N018\$



IATA



# GROUP-20

## ENABLE/DISABLE SYMBOLOGIES, CHINA POSTAL CODE

---

### ENABLE

. N032\$



GS1 Databar ENABLE

. N038\$



GS1 Databar STACKED ENABLE

. N010\$



GS1 Databar LIMITED ENABLE

. N026\$



GS1 Databar EXPANDED ENABLE

. N028\$



GS1 Databar EXPANDED STACKED ENABLE

### DISABLE

. N033\$



GS1 Databar DISABLE

. N039\$



GS1 Databar STACKED DISABLE

. N011\$



GS1 Databar LIMITED DISABLE

. N027\$



GS1 Databar EXPANDED DISABLE

. N029\$



GS1 Databar EXPANDED STACKED DISABLE

---

### CHINA POSTAL CODE [ TOSHIBA CODE ]

. K001\$



ENABLE

. K002\$



DISABLE

. K003\$



DISABLE CDV

. K004\$



CDV & SEND CD

. K005\$



CDV & NOT SEND CD

. K006\$



MIN LENGTH ( 11 )

. K007\$



MAX LENGTH ( 48 )

# GROUP-21

SYMBOLOLOGIES: MSI CODE, UK PLESSEY CODE

---

. L001\$



ENABLE

. L002\$



DISABLE

. L004\$



CDV & SEND CD

. L003\$



CDV & NOT SEND CD

. L007\$



CHECK DIGIT DOUBLE  
MOD 10

**MSI**

. L008\$



CHECK DIGIT DOUBLE 11  
PLUS MOD 10

. L009\$



CHECK DIGIT SINGLE  
MOD 10

. L005\$



MIN LENGTH ( 6 )

. L006\$



MAX LENGTH ( 48 )

. L010\$



ENABLE

. L011\$



DISABLE

**UK PLESSEY CODE**

. L012\$



CDV & SEND CD

. L013\$



CDV & NOT SEND CD

# GROUP-22

SYMBOLOGIES: CODE 93, TELEPEN, IATA

---

. G010\$



ENABLE

. G011\$



DISABLE

**CODE 93**

. G012\$



MIN LENGTH ( 6 )

. G013\$



MAX LENGTH ( 48 )

. L014\$



ENABLE TELEPEN

. L015\$



DISABLE TELEPEN

**TELEPEN**

. L020\$



TELEPEN ASCII

. L021\$



TELEPEN NUMBER

. N017\$



ENABLE

. N018\$



DISABLE

. N019\$



DISABLE CDV

. N020\$



CDV & SEND CD

**IATA**

. N021\$



CDV & NOT SEND CDV

. N022\$



MIN LENGTH ( 6 )

. N023\$



MAX LENGTH ( 48 )

# GROUP-23

SYMBOLOGIES: INTERLEAVED 2 OF 5, CODE 11

---

. J 0 0 1 \$



**ENABLE**

. J 0 0 2 \$



DISABLE

. J 0 0 3 \$



**DISABLE CDV**

. J 0 0 4 \$



CDV & SEND CD

. J 0 0 5 \$



CDV & NOT SEND CD

## INTERLEAVED 2 OF 5

. J 0 0 8 \$



First digit suppressed

. J 0 0 9 \$



Last digit suppressed

. J 0 1 4 \$



**NO suppressed**

. J 0 0 6 \$



MIN LENGTH ( 6 )

. J 0 0 7 \$



MAX LENGTH ( 48 )

. I 0 1 0 \$



ENABLE

. I 0 1 1 \$



**DISABLE**

. I 0 1 2 \$



**DISABLE CDV**

. I 0 1 3 \$



CDV & SEND CD

. I 0 4 2 \$



CDV & SEND CD  
(1 DIGIT)

## CODE 11

. I 0 4 3 \$



CDV & SEND CD  
(2 DIGITS)

. I 0 1 4 \$



CDV & NOT SEND CD

. I 0 1 5 \$



MIN LENGTH ( 6 )

. I 0 1 6 \$



MAX LENGTH ( 32 )

# GROUP-24

SYMBOLOGIES: INDUSTRIAL 2 OF 5, MATRIX 2 OF 5

---

. N001\$



ENABLE

. N002\$



DISABLE

. N003\$



DISABLE CDV

. N004\$



CDV & SEND CD

**INDUSTRIAL 2 OF 5**

. N005\$



CDV & NOT SEND CD

. N006\$



MIN LENGTH ( 6 )

. N007\$



MAX LENGTH ( 48 )

. M010\$



ENABLE

. M011\$



DISABLE

. M012\$



DISABLE CDV

. M013\$



CDV & SEND CD

**MATRIX 2 OF 5**

. M014\$



CDV & NOT SEND CD

. M015\$



MIN LENGTH ( 6 )

. M016\$



MAX LENGTH ( 48 )

# GROUP-25

## SYMBOLOGIES: CODABAR

. I 001\$



ENABLE

. I 002\$



DISABLE

. I 005\$



DISABLE CDV

. I 006\$



CDV & SEND CD

### CODABAR

. I 007\$



CDV & NOT SEND CD

. I 008\$



MIN LENGTH ( 6 )

. I 009\$



MAX LENGTH ( 48 )

. I 030\$



ST/SP: abcd/abcd

. I 029\$



ST/SP: ABCD/ABCD

. I 031\$



ST/SP: ABCD/TN\*E

. I 032\$



ST/SP: abcd/tn\*e

### START / STOP

. I 003\$



SEND START / STOP

. I 004\$



Not Send START / STOP

#### Example of ST ( Start ) / SP ( Stop )

|          |                    |
|----------|--------------------|
| 123456   | Not Transmit ST/SP |
| A123456B | ST/SP: ABCD/ABCD   |
| a123456b | ST/SP: abcd/abcd   |
| A123456N | ST/SP: ABCD/TN*E   |
| a123456n | ST/SP: abcd/tn*e   |

. I 027\$



CLSI FORMAT ON

. I 028\$



CLSI FORMAT OFF

### CLSI FORMAT

CLSI- Enable library space insertion. If you enable the CLSI format, this option inserts spaces in position 2, 7, 13 of the data string for use in library systems.

# GROUP-26

SYMBOLOGIES: ABC- CODABAR, CX- CODABAR

---



ON



OFF



SET INSERT DATA\*

## ABC- CODABAR



INSERT DATA- ON



INSERT DATA- OFF

*\*The data can be any alphanumerics of FULL ASCII Table  
(GROUP 36-44)*

### REMARK:

ABC-CODABAR (American Blood Commission). The ABC Code is an acronym for American Blood Commission. This bar code is a variant of the CODABAR Code developed for the use in the blood bank. This Code consists of two bar codes which are decoded in one read cycle. The code is concatenated when the stop character of the first bar code and the start character of the second bar code is a “ D ”, these two “ D ” are not transmitted.

---



ON



OFF



SET INSERT DATA\*

## CX CODE- CODABAR



INSERT DATA- ON



INSERT DATA- OFF

*\*The data can be any alphanumerics of FULL ASCII Table  
(GROUP 36-44)*

### REMARK:

The CX-Code consists of two bar codes which are decoded in one read cycle, the code is concatenated when the stop character of the first bar code is a C, and the start character of the second bar code is a B. The B and C characters are not transmitted.

# GROUP-27

SYMBOLOLOGIES: CODABAR COUPLING, ADJACENT REQUIRED



ON



**OFF**



SET INSERT DATA\*

## CODABAR COUPLING



INSERT DATA - ON



INSERT DATA - OFF

ABC-Codabar and CX-Codabar have certain rules regarding the Stop Character of first bar code and the stop character of second bar code while in conjunction, while Codabar-Coupling is enabled, the data from any two Codabar bar codes can be coupled into one set of data without any limitations between the Stop character of first bar code and the Start character of second bar code. The Start and Stop characters associated with each bar code will be sent.

\* The data can be any alphanumeric of FULL ASCII Table (GROUP 36-44)

## ADJACENT REQUIRED

If CODABAR ADJACENT is enabled, the scanner will only read two adjacent Codabar bar codes; a single bar code will not be read.

### NOTES:

1. Both ABC-Codabar and CX-Codabar can be enabled together, except when Codabar-Coupling is also enabled.
2. If ABC-Codabar, CX-Codabar, and Codabar-Coupling are all enabled at the same time, the scanner will read only Codabar-Coupling, that is, ABC-Codabar, CX-Codabar will be considered coupling formats.



ON



**OFF**

## SETTING PROCEDURE - SET INSERT DATA

Step 1- Scan SET INSERT DATA.

Step 2- Scan any combination of alphanumeric characters from FULL ASCII Table.

Step 3- Scan SET INSERT DATA.

**RESET**



### NOTES:

1. The scanner will beep three times as a reminder that a setting is not yet complete.
2. If you make a mistake, forget a step, etc., Scan RESET to start again.



# GROUP-28

SYMBOLOGIES: STANDARD & FULL ASCII CODE 39, CODE 32

---

## STANDARD CODE 39 & FULL ASCII 39



### NOTE:

The default for Code 39 is Standard Code 39. If Full ASCII Code 39 is enabled, Standard Code 39 will be automatically disabled.



## CODE 32



# GROUP-29

## SYMBOLOGIES FORMATTING: UPC-E

---

. H007\$



ENABLE

. H008\$



DISABLE

. H009\$



LEAD DIGIT SEND

. H010\$



LEAD DIGIT NO SEND

. H011\$



CHECK DIGIT SEND

. H012\$



CHECK DIGIT NO SEND

. H037\$



+5 ON

. H038\$



+ 5 OFF

. H039\$



+2 ON

. H040\$



+ 2 OFF

## ADD ON SUPPLEMENT

. H047\$



ADD A SPACE ON

. H048\$



ADD A SPACE OFF

. H056\$



ADDENDA REQUIRED ON

. H055\$



ADDENDA REQUIRED OFF

---

### NOTE:

If ADDENDA REQUIRED is set to ON, the scanner will only read an UPC-E bar code that has an addenda. At the same time please also scan +5 ON or +2 ON so the scanner will output a 5-digit or 2-digit addendum.

# GROUP-30

## SYMBOLOLOGIES: UPC-E SYSTEM NUMBER

---

### UPC-E0

. H064\$



E ( 0 ) OFF

. H063\$



E ( 0 ) ON

---

### UPC-E1

. H065\$



E ( 1 ) ON

. H066\$



E ( 1 ) OFF

### NOTE:

Most UPC bar codes lead with 0 number systems, for these bar codes use UPC E(0) selection. For the bar codes that lead with the 1 number, use UPC E(1) selection.

---

### UPC-E EXPAND TO UPC-A

. H053\$



ENABLE

. H054\$



DISABLE

---

### NOTE:

1. If UPC-E EXPAND TO UPC A FORMAT is enabled, the output of UPC-A will be 12 digits.
2. The default output of UPC-A is 12 digits, if UPC-A EXPAND TO EAN13 is enabled, a zero will be added to in front of the bar code.

# GROUP-31

## SYMBOLOLOGIES FORMATTING: UPC- A

---

. H001\$



ENABLE

. H002\$



DISABLE

. H003\$



LEAD DIGIT SEND

. H004\$



LEAD DIGIT NO SEND

. H005\$



CHECK DIGIT SEND

. H006\$



CHECK DIGIT NO SEND

---

### UPC-A EXPAND TO EAN-13

. H068\$



ENABLE

. H067\$



DISABLE

. H033\$



+5 ON

. H034\$



+ 5 OFF

. H035\$



+2 ON

. H036\$



+ 2 OFF

### ADD ON SUPPLEMENT

. H045\$



ADD A SPACE ON

. H046\$



ADD A SPACE OFF

. H060\$



ADDENDA REQUIRED ON

. H059\$



ADDENDA REQUIRED OFF

---

### NOTE:

If ADDENDA REQUIRED is set to ON, the scanner will only read an UPC-E bar code that has an addenda. At the same time please also scan +5 ON or +2 ON so the scanner will output a 5-digit or 2-digit addendum.

# GROUP-32

## SYMBOLOGIES FORMATTING: EAN 8

---



ENABLE



DISABLE



LEAD DIGIT SEND



LEAD DIGIT NO SEND



CHECK DIGIT SEND



CHECK DIGIT NO SEND

---



+ 5 ON



+ 5 OFF



+ 2 ON



+ 2 OFF

### ADD ON SUPPLEMENT



ADD A SPACE ON



ADD A SPACE OFF



ADDENDA REQUIRED ON



ADDENDA REQUIRED OFF

---

### NOTE:

If ADDENDA REQUIRED is set to ON, the scanner will only read an UPC-E bar code that has an addenda. At the same time please also scan +5 ON or +2 ON so the scanner will output a 5-digit or 2-digit addendum.

# GROUP-33

## SYMBOLOLOGIES FORMATTING: EAN13, ISBN, ISSN, ISMN

. H013\$



**ENABLE**

. H014\$



**DISABLE**

. H015\$



**LEAD DIGIT SEND**

**EAN-13**

. H016\$



**LEAD DIGIT NO SEND**

. H017\$



**CHECK DIGIT SEND**

. H018\$



**CHECK DIGIT NO SEND**

. H025\$



**+ 5 ON**

. H026\$



**+ 5 OFF**

. H027\$



**+ 2 ON**

. H028\$



**+ 2 OFF**

**ADD ON SUPPLEMENT**

. H041\$



**ADD A SPACE ON**

. H042\$



**ADD A SPACE OFF**

. H058\$



**ADDENDA REQUIRED ON**

. H057\$



**ADDENDA REQUIRED OFF**

. H050\$



**ISBN OFF**

**ISBN**

. H049\$



**ISBN ON**

### NOTES:

1. If ADDENDA REQUIRED is set to ON, the scanner will only read an EAN-13 bar code that has an addenda.
2. Either ISSN or ISBN will be considered as an extension of EAN-13. If ISSN or ISBN needs to be read, EAN-13 must be enabled. If ISSN and ISBN need to be read with addenda, EAN-13 must be enabled with ADDENDA REQUIRED set to ON, and +2 ON or +5 ON must be enabled as well.

. H052\$



**ISSN OFF**

**ISSN**

. H051\$



**ISSN ON**

### NOTE:

Both ISSN and ISBN are the extension codes of EAN-13. If scanner is required to read either ISSN or ISBN, EAN-13 must be enabled. Otherwise the scanner will not be able to read ISSN or ISBN.

. H070\$



**ISMN OFF**

**ISMN**

. H069\$



**ISMN ON**

# GROUP-34

SYMBOLOGIES: EAN/UCC-128, CODE 128

. M001\$



ENABLE

. M002\$



DISABLE

. M003\$



CODE ID ENABLE

. M004\$



CODE ID DISABLE

## EAN/ UCC-128

. M005\$



FUNC 1 CHAR SEND

. M006\$



FUNC 1 CHAR NOT SEND

. M007\$



DEFINE FNC1

### NOTES: DEFINE EAN 128

The first FNC1 character is translated to ]c1, and the second FNC1 character is translated to an ASCII <GS> character (scan from Group 56-60)

String format:

|     |                 |      |                 |
|-----|-----------------|------|-----------------|
| ]C1 | DATA CHARACTERS | <GS> | DATA CHARACTERS |
|-----|-----------------|------|-----------------|

### Setting Procedure:

- 1: Scan DEFINE FNC1.
- 2: Scan one ASCII Code ( Group 56-60 )
- 3: Scan DEFINE FNC1.

## CODE 128

. J010\$



ENABLE

. J011\$



DISABLE

. J012\$



MIN LENGTH ( 5 )

. J013\$



MAX LENGTH ( 48 )

# GROUP-35

## GS1 DataBar, LIMITED, EXPANDED

### GS1 DataBar (RSS) - OMNI & STACKED

. N032\$



GS1 DataBar ENABLE

. N034\$



GS1 DataBar CHECK DIGIT SEND

. N036\$



GS1 DataBar PREFIX SEND

. N038\$



GS1 DataBar STACKED ENABLE

. P024\$



GS1 DataBar SET ID

. N033\$



GS1 DataBar DISABLE

. N035\$



GS1 DataBar CHECK DIGIT NOT SEND

. N037\$



GS1 DataBar PREFIX NOT SEND

. N039\$



GS1 DataBar STACKED DISABLE

. N010\$



GS1 DataBar LIMITED ENABLE

. N012\$



GS1 DataBar LIMITED CHECK DIGIT SEND

. N024\$



GS1 DataBar LIMITED PREFIX SEND

. P019\$



GS1 DataBar LIMITED SET ID

### GS1 DataBar (RSS) - LIMITED

. N011\$



GS1 DataBar LIMITED DISABLE

. N013\$



GS1 DataBar LIMITED CHECK DIGIT NOT SEND

. N025\$



GS1 DataBar LIMITED PREFIX NOT SEND

. N026\$



GS1 DataBar EXPANDED ENABLE

. N028\$



GS1 DataBar EXPANDED STACKED ENABLE

. N030\$



GS1 DataBar EXPANDED MIN LENGTH

. P020\$



GS1 DataBar EXPANDED SET ID

. N027\$



GS1 DataBar EXPANDED DISABLE

. N029\$



GS1 DataBar EXPANDED STACKED DISABLE

. N031\$



GS1 DataBar EXPANDED MAX LENGTH

### GS1 DataBar (RSS) - EXPANDED



# GROUP-36

FULL ASCII TABLE ( CODE 39 )  
CONTROL CODES

---

|     |                                                                                     |     |
|-----|-------------------------------------------------------------------------------------|-----|
| %U  |    | NUL |
| \$A |    | SOH |
| \$B |    | STX |
| \$C |    | ETX |
| \$D |    | EOT |
| \$E |    | ENQ |
| \$F |   | ACK |
| \$G |  | BEL |
| \$H |  | BS  |
| \$I |  | HT  |
| \$J |  | LF  |
| \$K |  | VT  |
| \$L |  | FF  |
| \$M |  | CR  |
| \$N |  | SO  |
| \$O |  | SI  |

# GROUP-37

FULL ASCII TABLE ( CODE 39 )  
CONTROL CODES

---

|     |                                                                                            |
|-----|--------------------------------------------------------------------------------------------|
| DLE | \$P<br>   |
| DC1 | \$Q<br>   |
| DC2 | \$R<br>   |
| DC3 | \$S<br>   |
| DC4 | \$T<br>   |
| NAK | \$U<br>   |
| SYN | \$V<br>   |
| ETB | \$W<br> |
| CAN | \$X<br> |
| EM  | \$Y<br> |
| SUB | \$Z<br> |
| ESC | %A<br>  |
| FS  | %B<br>  |
| GS  | %C<br>  |
| RS  | %D<br>  |
| US  | %E<br>  |
| SP  |         |

# GROUP-38

## FULL ASCII TABLE ( CODE 39 ) SYMBOLS

---

|     |  |    |
|-----|--|----|
| +   |  | +  |
| -   |  | -  |
| .   |  | .  |
| \$  |  | \$ |
| %   |  | %  |
| /   |  | /  |
| %L  |  | \  |
| / A |  | !  |
| %V  |  | @  |
| / C |  | #  |
| %N  |  | ^  |
| %S  |  | ~  |
| / F |  | &  |
| / J |  | *  |
| %□  |  | -  |
| %H  |  | =  |
| %□  |  |    |

# GROUP-39

## FULL ASCII TABLE ( CODE 39 ) SYMBOLS

---

|     |                                                                                            |
|-----|--------------------------------------------------------------------------------------------|
| {   | %P<br>    |
| }   | %R<br>    |
| [   | %K<br>    |
| ]   | %M<br>    |
| (   | / H<br>   |
| )   | / I<br>   |
| <   | %G<br>   |
| >   | %I<br>  |
| ,   | %W<br>  |
| "   | / B<br> |
| '   | / G<br> |
| ,   | / L<br> |
| ;   | %F<br>  |
| :   | / Z<br> |
| ?   | %J<br>  |
| DEL | %T<br>  |

# GROUP-40

FULL ASCII TABLE ( CODE 39 )  
UPPER CASE ALPHABETS

---

A  A

B  B

C  C

D  D

E  E

F  F

G  G

H  H

I  I

J  J

K  K

L  L

M  M

# GROUP-41

FULL ASCII TABLE ( CODE 39 )  
UPPER CASE ALPHABETS

---

N 

O 

P 

Q 

R 

S 

T 

U 

V 

W 

X 

Y 

Z 

# GROUP-42

FULL ASCII TABLE ( CODE 39 )  
LOWER CASE ALPHABETS

---

+A



a

+B



b

+C



c

+D



d

+E



e

+F



f

+G



g

+H



h

+I



i

+J



j

+K



k

+L



l

+M



m

# GROUP-43

FULL ASCII TABLE ( CODE 39 )  
LOWER CASE ALPHABETS

---

n  +N

o  +Q

p  +P

q  +Q

r  +R

s  +S

t  +T

u  +U

v  +V

w  +W

x  +X

y  +Y

z  +Z



# GROUP-44

FULL ASCII TABLE ( CODE 39 )  
NUMBERS

---



0



1



2



3



4



5



6



7



8



9

# GROUP-45

FULL ASCII TABLE ( CODE 39 )  
FUNCTION KEYS

---

|                     |       |                                                                                     |
|---------------------|-------|-------------------------------------------------------------------------------------|
| F1                  | \$TA  |    |
| F2                  | \$TB  |    |
| F3                  | \$TC  |    |
| F4                  | \$TD  |    |
| F5                  | \$TE  |    |
| F6                  | \$TF  |    |
| F7                  | \$TG  |    |
| F8                  | \$TH  |  |
| F9                  | \$TI  |  |
| F10                 | \$TJ  |  |
| F11                 | \$TK  |  |
| F12                 | \$TL  |  |
| Home                | \$TM  |  |
| End                 | \$TN  |  |
| Enter (Numeric Key) | \$T+D |  |
| App                 | \$T+□ |  |

# GROUP-46

FULL ASCII TABLE ( CODE 39 )  
NAVIGATION KEYS

---

\$T O



Cursor Right

\$T P



Cursor Left

\$T Q



Cursor Up

\$T R



Cursor Down

\$T S



Page Up

\$T T



Page Down

\$T U



Tab

\$T V



Back Tab

\$T W



Esc

\$T X



Enter

\$T Y



BS

\$T Z



Ins

\$T % K



Del

# GROUP-47

## FULL ASCII TABLE ( CODE 39 ) MODIFIER KEYS

\$T%L



Alt (Left) make \*1

\$T+E



Alt (Right) make

\$T%N



Shift (Left) make \*2

\$T+I



Shift (Right) make

\$T+K



Win (Left) make

\$T+M



Win (Right) make

\$T%W



Ctrl (Left) make \*3

\$T+G



Ctrl (Right) make

\$T%M



Alt (Left) break

\$T+F



Alt (Right) break

\$T%O



Shift (Left) break

\$T+J



Shift (Right) break

\$T+L



Win (Left) break

\$T+N



Win (Right) break

\$T+A



Ctrl (Left) break

\$T+H



Ctrl (Right) break

For UK Keyboard Special Character

\$T+B



\$T+C



£

### Note:

- \*1: When "Alt(Left)Make" is programmed, please scan "Alt(Left)Break" to resume barcode setting.
- \*2: When "Shift(Left)Make" is programmed, please scan "Shift(Left)Break" to resume barcode setting.
- \*3: When "Ctrl(Left)Make" is programmed, please scan "Ctrl(Left)Break" to resume barcode setting.

# APPENDIX 1

## DEFAULT TABLE 1

| GROUP | PARAMETER                                                | DEFAULT                       |
|-------|----------------------------------------------------------|-------------------------------|
| 1     | Setup Code                                               | On                            |
| 2     | Reading Mode                                             | Trigger                       |
| 3     | Beep Tone Mode 2.7k                                      | Beep Medium                   |
|       | Terminator                                               | CR(USB); CR+LF(UART)          |
| 4     | Send Data Length                                         | Off                           |
|       | Preamble & Postamble                                     | None                          |
| 5     | Accuracy Adjustment                                      | 1                             |
| 6     | Inverse Barcode                                          | Disable                       |
| 6~9   | Enable & Disable Code ID                                 | Off                           |
| 10    | Interblock Delay                                         | 0ms                           |
|       | Intercharacter Delay                                     | 140us                         |
| 11    | Keyboard Layout                                          | English(USA)                  |
| 12    | Caplock                                                  | Off                           |
|       | Numeric Key                                              | Alphanumeric Key              |
| 13    | Interface Selection                                      | N/A (not affected by Default) |
| 14    | LED Auto Off Control<br>(Trigger & Toggle Mode)          | Disable                       |
|       | LED Auto Off Timeout<br>(Trigger & Toggle Mode)          | 3 sec                         |
|       | Trigger Control<br>(Flash, Continuous, Test Mode)        | Disable                       |
|       | Identical Read Timeout<br>(Flash, Continuous, Test Mode) | 1 sec                         |
| 15    | Flash Timeout<br>(Flash Mode)                            | 60 sec                        |
|       | LED Auto Off Timeout<br>(Continuous Auto Off Mode)       | 60 sec                        |
| 16    | Baud Rate                                                | 9600                          |
|       | Data Bits & Parity                                       | 8 Bits None                   |
| 17    | Stop Bits                                                | 1 stop bit                    |
|       | Handshaking                                              | None                          |
|       | ACK/NAK                                                  | Off                           |
|       | Flow Control Timeout                                     | 1 Sec                         |
|       | BCC                                                      | Off                           |
| 18    | Enable and Disable Symbologies                           |                               |
|       | Code 32                                                  | Disable                       |
|       | China Postal Code                                        | Enable                        |
|       | UK Plessey Code                                          | Disable                       |
|       | Industrial 2 of 5                                        | Disable                       |
|       | Matrix 2 of 5                                            | Disable                       |
|       | Interleaved 2 of 5                                       | Enable                        |
|       | Code 128                                                 | Enable                        |
|       | Codabar                                                  | Enable                        |
|       | Telepen                                                  | Disable                       |

# APPENDIX 1

## DEFAULT TABLE 2

| GROUP |   | PARAMETER                    | DEFAULT       |
|-------|---|------------------------------|---------------|
| 19    |   | UPC-A                        | Enable        |
|       |   | UPC-E                        | Enable        |
|       |   | EAN-8                        | Enable        |
|       |   | EAN-13                       | Enable        |
|       |   | MSI                          | Disable       |
|       |   | Code 39                      | Enable        |
|       |   | Code 11                      | Disable       |
|       |   | Code 93                      | Disable       |
|       |   | EAN-128                      | Enable        |
|       |   | IATA                         | Disable       |
| 20    | 1 | GS1 Databar                  | Disable       |
|       |   | GS1 Databar Stacked          | Enable        |
|       |   | GS1 Databar Limited          | Disable       |
|       |   | GS1 Databar Expanded         | Disable       |
|       |   | GS1 Databar Expanded Stacked | Enable        |
|       | 2 | China Post Code              |               |
|       |   | Enable/Disable               | Enable        |
|       |   | Check Digits                 | Disable CDV   |
|       |   | Min Length                   | 11 digits     |
|       |   | Max Length                   | 48 digits     |
| 21    | 1 | MSI                          |               |
|       |   | Enable/Disable               | Disable       |
|       |   | Check Digits                 | CDV & send CD |
|       |   | Check Digits Mode            | Single MOD 10 |
|       | 2 | UK Plessey                   |               |
|       |   | Enable/Disable               | Disable       |
| 22    | 1 | Code 93                      |               |
|       |   | Enable/Disable               | Disable       |
|       |   | Min Length                   | 6 digits      |
|       |   | Max Length                   | 48 digits     |
|       | 2 | Telepen                      |               |
|       |   | Enable/Disable               | Disable       |
|       |   | Telepen ASCII/ Number        | Number        |
|       | 3 | IATA                         |               |
|       |   | Enable/Disable               | Disable       |
|       |   | Check Digits                 | Disable CDV   |
|       |   | Min Length                   | 6 digits      |
|       |   | Max Length                   | 48 digits     |
| 23    | 1 | Interleaved 2 of 5           |               |
|       |   | Enable/Disable               | Enable        |
|       |   | Check Digits                 | Disable CDV   |
|       |   | First/ last digit suppressed | No suppressed |
|       |   | Min Length                   | 6 digits      |
|       |   | Max Length                   | 48 digits     |
|       | 2 | Code II                      |               |
|       |   | Enable/Disable               | Disable       |
|       |   | Check Digits                 | Disable CDV   |
|       |   | Min Length                   | 6 digits      |
|       |   | Max Length                   | 32 digits     |
| 24    | 1 | Industrial 2 of 5            |               |
|       |   | Enable/Disable               | Disable       |
|       |   | Check Digits                 | Disable CDV   |
|       |   | Min Length                   | 6 digits      |
|       |   | Max Length                   | 48 digits     |
|       | 2 | Matrix 2 of 5                |               |
|       |   | Enable/Disable               | Disable       |
|       |   | Check Digits                 | Disable CDV   |
|       |   | Min Length                   | 6 digits      |
|       |   | Max Length                   | 48 digits     |

# APPENDIX 1

## DEFAULT TABLE 3

| GROUP | PARAMETER                                           | DEFAULT     |
|-------|-----------------------------------------------------|-------------|
| 25    | <b>Codabar</b>                                      |             |
|       | Enable/Disable                                      | Enable      |
|       | Check Digits                                        | Disable CDV |
|       | Min Length                                          | 6 digits    |
|       | Max Length                                          | 48 digits   |
|       | ST/SP; Abcd/abcd, abcd/tn*c,<br>ABCD/ABCD,ABCD/TN*C | ABCD/ABCD   |
|       | Start(ST)/Stop(SP)                                  | Send        |
| 26    | CLSI Format                                         | On          |
|       | <b>ABC-Codabar</b>                                  |             |
|       | ON/OFF                                              | Off         |
|       | Insert Data                                         | Off         |
|       | <b>CX-Codabar</b>                                   |             |
| 27    | ON/OFF                                              | Off         |
|       | Insert Data                                         | Off         |
|       | Adjacent Required                                   | Off         |
|       | <b>Code 39</b>                                      |             |
| 28    | Full ASCII 39 Enable/Disable                        | Enable      |
|       | Check Digits                                        | Disable CDV |
|       | Start/Stop                                          | Not Send    |
|       | Min Length                                          | 1 digit     |
|       | Max Length                                          | 48 digits   |
|       | Code 32                                             |             |
|       | Enable/Disable                                      | Disable     |
|       | Leading                                             | send        |
|       | Tailing                                             | send        |
| 29    | <b>UPC-E</b>                                        |             |
|       | Enable/Disable                                      | Enable      |
|       | Check Digits                                        | Send        |
|       | Lead Digits                                         | Send        |
|       | Add a space                                         | Off         |
|       | Addenda required                                    | Off         |
|       | +5 On/Off                                           | Off         |
| 30    | +2 On/Off                                           | Off         |
|       | <b>UPC-E systems number</b>                         |             |
|       | UPC E(0) On/Off                                     | On          |
|       | UPC E(1) On/Off                                     | Off         |
|       | UPC-E expand to UPC-A                               | Disable     |
| 31    | UPC-A expand to EAN-13                              | Disable     |
|       | <b>UPC-A</b>                                        |             |
|       | Enable/Disable                                      | Enable      |
|       | Check Digits                                        | Send        |
|       | Lead Digits                                         | Send        |
|       | Add a space                                         | Off         |
|       | Addenda required                                    | Off         |
|       | +5 On/Off                                           | Off         |
| 32    | +2 On/Off                                           | Off         |
|       | <b>EAN-8</b>                                        |             |
|       | Enable/Disable                                      | Enable      |
|       | Check Digits                                        | Send        |
|       | Lead Digits                                         | Send        |
|       | Add a space                                         | Off         |
|       | Addenda required                                    | Off         |
|       | +5 On/Off                                           | Off         |
|       | +2 On/Off                                           | Off         |

# APPENDIX 1

## DEFAULT TABLE 4

| GROUP | PARAMETER                       | DEFAULT     |
|-------|---------------------------------|-------------|
| 33    | <b>EAN-13</b>                   |             |
|       | Enable/Disable                  | Enable      |
|       | Check Digits                    | Send        |
|       | Lead Digits                     | Send        |
|       | Add a space                     | Off         |
|       | Addenda required                | Off         |
|       | +5 On/Off                       | Off         |
|       | +2 On/Off                       | Off         |
|       | ISSN On/Off                     | Off         |
|       | ISBN                            | Off         |
| 34    | <b>EAN/UCC128</b>               |             |
|       | Enable/Disable                  | Enable      |
|       | Code ID                         | Disable     |
|       | Func 1 Char Send                | Not Send    |
|       | <b>Code 128</b>                 |             |
|       | Enable/Disable                  | Enable      |
|       | Check Digits                    | Disable CDV |
|       | Min Length                      | 5 digits    |
|       | Max Length                      | 48 digits   |
|       |                                 |             |
| 35    | GS1 Databar                     | Disable     |
|       | GS1 Databar Check Digit         | Not Send    |
|       | GS1 Databar Prefix              | Not Send    |
|       | GS1 Databar Stacked             | Enable      |
|       | GS1 Databar Limited             | Disable     |
|       | GS1 Databar Limited Check Digit | Not Send    |
|       | GS1 Databar Limited Prefix      | Not Send    |
|       | GS1 Databar Expanded            | Disable     |
|       | GS1 Databar Expanded Stacked    | Enable      |