

# **Ez One Shot<sup>®</sup>**

## **BARCODE SCANNER USER'S MANUAL**



# CONTENTS

## GENERAL

Table of contents .....	1
Introduction, Ez Troubleshooting .....	2-3
Cloning Mode .....	4-5
Getting Started	
How to fix the scanner to the terminal .....	6-9
How to change a cable .....	9
How to set up the parameter .....	10

## SETTING GROUP(GROUP1~14)

1 Interfaces selection, Computer type, Default	
Scan speed .....	11
2 Reading Mode .....	12
3 Check Version, Beep tone, Terminator	
Send Data Length .....	13
4 Preamble and postamble .....	14
5 Accuracy adjustment .....	15
6 Enable and Disable Code ID, Label Type	
Positive/Negative .....	16
7 Symbolologies Code Identifier .....	17
8~9 Set Code ID, Customer Configuration .....	18-19
10 Delay between block and character .....	20
11 keyboard layout Caplock Mode, Numeric Key .....	21
12 RS232: Baud rate, Data bits & parity .....	22
13 RS232: Stop bit, handshaking, ACK/NAK, Flow Control, BCC .....	23
14 Wand Emulation parameter setting .....	24

## SYMBOLGY FORMATTING(GROUP15~33)

15 Enable Barcode Symbolgy .....	26
16 Disable Barcode Symbolgy .....	27
17 China postcode(Toshiba code), Code 32 .....	28
18 MSI code, UK Plessey code .....	30
19 Code93, Telepen, IATA .....	32
20 Interleaved 2 of 5, Code 11 .....	34
21 Industrial 2 to 5, Matrix 2 to 5 .....	36
22 Codabar .....	38
23 ABC Codabar, CX Codabar .....	40
24 Codabar Coupling .....	41
25 Standard Code 39, Full ASCII code 39, Code 32 .....	42
26 UPC-E .....	44
27 UPC-E(0)&(1), UPGC & UPGA Expand .....	45
28 UPA-A .....	46
29 EAN-8 .....	47
30 EAN-13, ISSN, ISBN, ISMN .....	48
31 EAN/UCC 128, CODE 128 .....	49
32 RSS, Limited, Expand .....	50
33 Bluetooth Model .....	51

## FULL ASCII(CODE39)TABLE,FUNCTION CODE TABLE(GROUP34~48)

34~42 Full ASCII table(Code 39) .....	52-60
43~45 Function code table(Code 39) for PC-AT .....	61-63
46~48 Trouble Shooting .....	64-66

## APPENDIX

Appendix 1 Default table .....	67-69
Appendix 2 Cable pin Assignment .....	70-71
Appendix 3 Barcode test chart .....	72-73

## INTRODUCTION

This scanner apply with Ez one shot easy programming decoder, It is specially designed to deliver high-end bar code reading performance at the lowest possible price. The scanner utilizes exceptional decoding technology. One-time settings are easily made by scanning set-up bar codes in this handy user's manual. This bar code scanner uses CCD or optical diode technology which does not have moving part, provide ragged reliable quality, enables it suit for any harsh environment conditions. Furthermore, the LED illumination light source of scanner provides less harmful beam to human eyes, and more longer product lifetime.

**The Ez One shot decoder are mainly apply to the following categories bar code scanner for your reference:**

1. Short Range- The reading distance is about from contact to 100mm,
2. Mid Range- The reading distance is about from contact to 180mm,
3. Long Range - The reading distance is about from 5mm to 300mm,
4. Wand or Pen bar code scanner.
5. Scan Engine and Fixed Mount scanner .

Notes: ( Please contact your distributor for the detail model number.)

## GENERAL

This scanner has many settings that can be used to conform the unit to the requirements of a particular application. For most usages, however, the default settings programmed into the unit at the factory are appropriate. It is not recommended that the default settings be changed unless there is a specific need to alter the characteristics of the scanner's performance.



## EZ TROUBLESHOOTING

The scanner is easy to install and use. Many problems encountered can be attributed to a wrong setting that has been programmed into the scanner. Before troubleshooting the problem, try this:

1. Unplug the cable from the host computer.
2. Plug the cable back into the host computer.
3. Reset the scanner settings to DEFAULT (Group 1).

. A □ □ 1 \$



If these steps do not resolve the problem, please refer to the troubleshooting table on the next page. If this fails to correct the problem, please consult the troubleshooting section beginning on page 64~66 for further assistance.

Figure 2		
No	Kind of Troubles	Symptoms Solutions
1	Computer Type (Group 1)	Scanner seems to be performing as usual, but no data is being output.  1. Unplug the cable from the host computer. 2. Plug the cable back into the host computer. 3. Set the scanner to the exact computer type immediately.
2	Interfaces Selections (Group 1)	The scanner does not scan when the trigger is depressed.  1. Unplug the cable from the host computer. 2. Plug the cable back into the host computer. 3. Set the scanner to the correct interface. The cable needs to match the interface.
3	Setting Procedure have not completed (Setting Need Triple Shot scanning ) ----- Group - 4, 5, 8, 9, 17, 18, 19, 20, 22, 23, 25, 31	Most settings require only a single bar code , but a few need several different bar codes to be scanned in order to completely define a setting. They are: 1. Preamble, Postamble (Group 4) (page 14) 2. Accuracy Adjustment (Group 5) (page 15) 3. Customer ID Configuration (Groups 8 and 9) (page 18-19) 4. Min/Max Length (Groups 17, 18, 19, 20, 21, 22, 25) 5. ABC Codabar (Groups 22) 6. CX-Codabar (Groups 22 and 23) 7. Coupling Codabar (Groups 22 and 23) 8. EAN 128 (Group 31)  1. Follow the procedures for these settings at the appropriate pages. 2. The scanner will beep three times for an incomplete setting. 3. Scan RESET to try a setting again.
4	Limitation of length of the bar code	Reset the Min/Max setting for the bar code symbology affected.
5	RS232 Protocol Communication setting problem	Ensure the correct RS-232 communication parameters have been set: Baud Rate, Handshaking, Stop Bits, Data Bits, and Parity. These settings must be the same for both the scanner and the host.

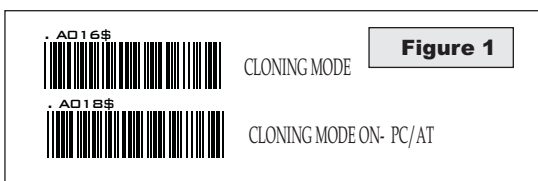
# CLONING MODE

## WHAT IS CLONING MODE?

CLONING duplicates a wand's settings in other wands. It can save time when a number of wands 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.



*.A018\$( Cloning Mode on PC/AT) - you can clone the settings to a PC/AT regardless what kind of device has been chosen on the scanner*

## 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 gate for cloning.
5. The cloning string's length can be adjusted by combining multiple strings into one, or by breaking one string to 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 rows >>> ".A017\$" ( never edit any data of the first row )

2nd rows >>> "....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 rows~ so on >>> XXXX

End rows- A dot "." Is an ending of cloning.

XXXX Stand for any String

## EXAMPLE :

### 1. PROJECT ASSIGNMENTS :

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

### 2. SETTING PROCEDURE:

- 2.1. Scan **BEEP LOW.--HIGH (GROUP 3).(page13)**
- 2.2. Scan **CAPSLOCK ON (FIXED).(GROUP 3)**.
- 2.3. Scan **CONTINUOUS AUTO OFF. (GROUP2).(page12)**

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

.A017\$  
....0604  
5A025F04  
.



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\$  
....  
0604  
5A02  
5F04  
.

4  
4  
4  
4  
(Dot)

.A017\$  
....06045A02  
5F04.

12  
4+.( Dot)

## WRONG SETTING

.A017\$  
..  
..0604  
5A02  
5F04  
.



**Wrong Setting:** The string"...."  
Consists of 4 Dots, located at the  
beginning of second rows, Do not  
break the "...." Into multiple string.

.A017\$  
....06045  
A025F04  
.

✓  
9 x  
7 x }  
(Dot) ✓

**Wrong Setting:** The string lengths in the  
second and third rows do not match the  
length requirements, because rows should  
be in lengths of four digits.

.A017\$....  
0604  
5A02  
5F04.

x  
4 ✓  
4 ✓  
4+.(Dot) ✓

**Wrong Setting Because you add  
"...." After .A017\$**  
The 0.A17\$ is a FIXED parameter for  
setup entering. It is an unchangeable  
parameter. **Never adds, delete or  
rearrange data from the FIRST row.**

# GETTING STARTED

## HOW TO CONNECT THE WAND TO THE HOST COMPUTER

### KEYBOARD WEDGE INTERFACE

1. Power down the host computer.
2. Disconnect the keyboard cable from the computer.
3. Connect the "Y" cable between the keyboard and the wand and the computer.
4. Restart the computer.
5. The wand will beep.
- 6 Set the wand to KEYBOARD interface by referring to GROUP 1 (page11) (Interface Selections).
7. Wand will beep to confirm the setting.
8. Scan a bar code to confirm that data shows on the monitor.



### USB INTERFACES

The USB Interface supported is compatible with the Apple MAC series, later PCs and Windows 98, 2000, Me, and XP.

1. Connect the USB cable between the scanner and the computer.
2. The scanner will beep.
3. The Scanner will detect the USB driver automatically. (The first time the scanner is connected via the USB port, follow the appropriate instructions for the host computer.)
4. Set the scanner to KEYBOARD/USB interface by referring to GROUP 1 (page11) (Interface Selections).
5. Scanner will beep to confirm the setting.
6. Scan a bar code to confirm that data shows on the monitor.



## RS-232 INTERFACE

1. Power down the host computer.
2. Connect the RS-232 cable between the wand and the computer.
3. Connect the power adaptor to the cable.
4. Restart the computer.
5. Plug the power adaptor into a power outlet.
6. The wand will beep.
7. Set the wand to RS-232 interface by referring to GROUP 1 (page 11) (Interface Selection).
8. Set RS-232 protocol: Baud Rate, Stop Bits, Handshaking, Data Bits, and Parity.
9. Scan a bar code to confirm that data shows on the monitor.



Check the power adaptor to ensure:

1. Input of AC current 110V/ 220V matches the power supply standard of the country in which the scanner is being used.
2. Adapter output is +5V DC
3. The jack input is +5V DC



### NOTES:

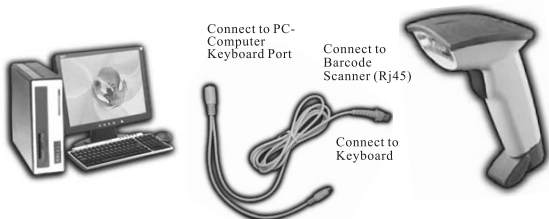
1. Before plugging the power adaptor into the wand, be sure the voltage, power consumption, and inner and outer DC characteristics are correct to avoid serious damage to the wand and/or the computer.
2. Make sure the protocol communication settings of the wand (such as baud rate, data bits, etc.) match those of the host computer. Otherwise, no data will be transmitted..



# HOW TO CONNECT THE SCANNER TO THE HOST TERMINAL: Handheld Barcode Scanner

## KEYBOARD WEDGE INTERFACE

1. Power down the host computer.
2. Disconnect the keyboard cable from the computer.
3. Connect the "Y" cable between the keyboard and the scanner and the computer.
4. Restart the computer.
5. The scanner will beep.
6. Set the scanner to KEYBOARD interface by referring to GROUP 1 (page 11) (Interface Selections).
7. Scanner will beep to confirm the setting.
8. Scan a bar code to confirm that data shows on the monitor.

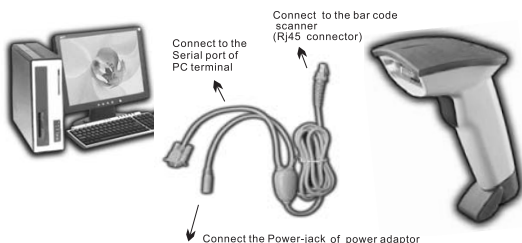


## RS-232 INTERFACE

1. Power down the host computer.
2. Connect the RS-232 cable between the scanner and the computer.
3. Connect the power adaptor to the cable.
4. Restart the computer.
5. Plug the power adaptor into a power outlet.
6. The scanner will beep.
7. Set the scanner to RS-232 interface by referring to GROUP 1 (page 11) (Interface Selection).
8. Set RS-232 protocol: Baud Rate, Stop Bits, Handshaking, Data Bits, and Parity.
9. Scan a bar code to confirm that data shows on the monitor.

### NOTES:

1. Before plugging the power adaptor into the scanner, be sure the voltage, power consumption, and inner and outer DC characteristics are correct to avoid serious damage to the scanner and/or the computer.
2. Make sure the protocol communication settings of the scanner (such as baud rate, data bits, etc.) match those of the host computer. Otherwise, no data will be transmitted.



Check the power adaptor to ensure:

1. Input of AC current 110V/ 220V matches the power supply standard of the country in which the scanner is being used.
2. Adapter output is +5V DC
3. The jack input is +5V DC



## USB INTERFACES

The USB Interface supported is compatible with the Apple MAC series, later PCs and Windows 98, 2000, Me, and XP.

1. Connect the USB cable between the scanner and the computer.
2. The scanner will beep.
3. The Scanner will detect the USB driver automatically. (The first time the scanner is connected via the USB port, follow the appropriate instructions for the host computer.)
4. Set the scanner to KEYBOARD/USB interface by referring to GROUP-1 (Interface Selections).
5. Scanner will beep to confirm the setting.
6. Scan a bar code to confirm that data shows on the monitor.

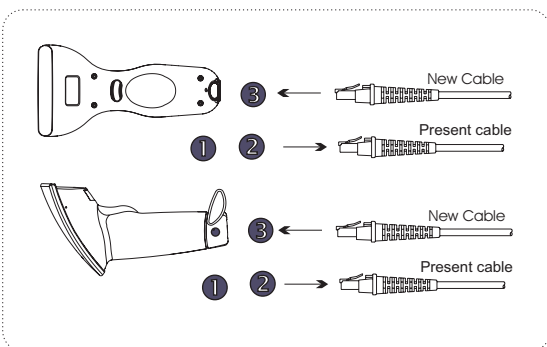


## HOW TO CHANGE A CABLE

The CCD scanner are designed to switch easily between interface options. To switch from one interface to another, the appropriate cable must be installed. To change a cable, simply follow these steps:

1. To release the cable, insert a pin or straightened paper clip into the hole at the base of the scanner where the cable is connected.
2. Remove the cable from the scanner.
3. Plug in the new cable.

After changing to a new cable, be sure to reset the interface setting as appropriate (including parameter settings for the RS-232 interface).



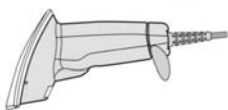
## HOW TO SET PARAMETERS

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 setting will 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 to be scanned in order to completely define a setting. They are:



■■■■■■■■■■ ■ SETTING BAR CODE ■■■■■■■■■■

**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 Groups 34 - 45. (page52-63)

Step 4: Scan PREAMBLE or POSTAMBLE.

## Min Length / Max Length

Step 1: Scan MIN LENGTH or MAX LENGTH.

Step 2: Scan two digits from Group 42 (page60)

Step 3: Scan MIN LENGTH or MAX LENGTH.

### Accuracy Adjustment

### Step1: Scan ACCURACY ADJUSTMENT.

Step 2: Scan one digit from Group 42 (page 60)

Step 3: Scan ACCURACY ADJUSTMENT

**Customer Configuration ID ( Example: Code 39 )**

Step 1: Scan CODE 39 SET ID from Group 8. (page18)

Step 2: Scan either one digit or two digits alphanumeric (maximum 2 digits) from Full ASCII table in Groups 34 - 45. (page52-63)

Step 3: Scan CODE 39 SET ID from Group 8. (page 18)

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

Step1: Scan SET A DATA.

Step 2: Scan one digit/ any alphanumeric character from Full ASCII Table in Groups 34 - 45. (page52-63)

Step 3: Scan SET A 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 CLEAR to start again.



# GROUP-1

INTERFACES SELECTION, COMPUTER TYPE, DEFAULT, SCAN SPEED.

## DEFAULT

. A001\$



## COMPUTER TYPE

. C006\$



MAC ADB

. C007\$



NOTEBOOK\*

SYMPTOMS	SOLUTION
Scanner seems to be performing as usual, but no data is being output.	1. Unplug the cable from the host computer. 2. Plug the cable back into the host computer. 3. Set the scanner to the exact computer type immediately.

**Caution:** Please ensure the correct computer type is set when the scanner is attached to a new host computer. If set to Notebook, the scanner will operate with no external keyboard.

. C001\$



KEYBOARD& USB

## INTERFACES SELECTION

. C002\$



RS232

. C003\$



WAND

SYMPTOM	SOLUTION
The wand does not scan/ The scanner does not scan when the trigger is depressed.	1. Unplug the cable from the host computer. 2. Plug the cable back into the host computer. 3. Set the wand to the correct interface. The cable needs to match the interface.

**Caution:** 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.

## SCAN SPEED

. B017\$



AMIC 45 Scan

. B018\$



AMIC 90 Scan

\* For AMIC Modle

# GROUP-2

## READING MODE SETTING

---

. F005\$



CONTINUOUS MODE

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

. F001\$



FLASH MODE

- \*The LED is on steadily if a bar code is close to the scanner, but starts to flash if no bar code has been 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

- \* This function works like Trigger Mode, but the scanner beeps to indicate a good read.

. F007\$



\*AUTO SENSING MODE

- \* If Auto-Sensing (Triggerless) Mode is on, the LED will go off if the scanner does not detect a bar code.
- \* The LED lights automatically when a bar code is detected.

. F008\$



\*ULTRAVIOLET MODE

- \* If Ultraviolet Mode is on, the ultraviolet light source will light and stay on continuously.
- \* The ultraviolet light will go off when the trigger is pressed, and back on when the trigger is released.

. F004\$



TEST MODE

- \* Factory Test Scanning

### NOTES:

1. To extend the scanner's life, keep the scanner set to Trigger Mode or Continuous Auto Off Mode.
2. Only certain models support Auto Sensing or Ultraviolet Modes.
3. For convenience, print the bar code for Ultraviolet Mode and keep it near the work station for easy scanning when needed.
4. In Ultraviolet Mode, press the trigger button and the reading mode will swift from Ultraviolet Mode to the reading mode the scanner was last in.
5. The LED will glow RED for STANDBY and GREEN for GOOD READ.
6. The Trigger Mode is available for most handheld bar code scanner, but The trigger is only available to wands with a switch capability.

# GROUP-3

CHECK VERSION, BEEP TONE , TERMINATOR SEND DATA LENGTH

---

## BEEP TONE MODE

2.1KHz

.F019\$



BEEP HIGH

.F021\$



BEEP HIGH--LOW

.F018\$



BEEP MEDIUM

.F020\$



BEEP LOW--HIGH

.F022\$



BEEP LOW

2.7KHz

.F012\$



OFF

.F014\$



BEEP HIGH

.F016\$



BEEP HIGH--LOW

.F013\$



BEEP MEDIUM

.F015\$



BEEP LOW--HIGH

.F017\$



BEEP LOW

---

## CHECK VERSION

.A007\$



CHECK VERSION

---

## TERMINATOR

.D010\$



NONE

.D011\$



LF

.D012\$



CR

.D013\$



CR+LF

.D014\$



TAB

.D015\$



SPACE

.D016\$



ESC

### NOTES:

1. For the Keyboard Wedge interface the default terminator is CR.
2. For the USB interfaces the default terminator is CR,
3. For the RS232 interfaces the default terminator is CR+LF

---

## SEND DATA LENGTH

.D019\$



SEND DATA LENGTH ON

.D020\$



SEND DATA LENGTH OFF

# GROUP-4

## SETUP CODE READ, PREAMBLE & POSTAMBLE.

### SETUP CODE READ

.B015\$



SETUP CODE ON

.B016\$



SETUP CODE OFF \* 1

### NOTE :

- \* 1 This setting is disable to all User's Manual Code setting. To use bar code setting, Scan Setup Code On enable bar code setting.

### 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.

### FORMAT:

{ Preamble}{CodeID}{Bar Code}{Postamble}

### 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 bar code.
3. Default value for either: None.

# GROUP-5

## 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

LABEL TYPE POSITIVE / NEGATIVE, ENABLE AND DISABLE CODE ID

## LABEL TYPE POSITIVE / NEGATIVE

.D021\$



DISABLE NEGATIVE LABEL  
(POSITIVE LABEL ENABLE)

.D022\$



ENABLE NEGATIVE LABEL  
(POSITIVE & NEGATIVE ENABLE)

## 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

]E0

CODE ID  
AIM ID : ]E0



4563987123453

BARCODE / DATA  
EAN 13 +5



12411

OUTPUT : 145287]E0456398712345312411

# GROUP-7

## SYBLOGIES CODE ID IDENTIFIER, SET ID

SYBLOGIES CODE ID IDENTIFIER					
Symbologies	Factory ID	AIM ID (new)	Symbologies	Factory ID	AIM ID (new)
MSI	O	]M0	EAN 128	T	]C1
MSI(MOD 10 / CDV & not send CD)		]M1	Code 128	K	]C0
EAN8(+2/+5 OFF)	S	]E4	Code 32	B	]X0
EAN8(+2 ON)		]E4	Codabar	N	]F0
EAN8(+5 ON)		]E4	Codabar(ABC Codabar)		]F1
UPC-E(+2/+5 OFF)	E	]E0	Codabar(CDV & Send CD)		]F2
UPC-E(+2 ON)		]E3	Codabar(CDV & not send CD)	P	]F4
UPC-E(+5 ON)		]E3	UK Plessey		]P0
UPC-A(+2/+5 OFF)	A	]E0	Matrix 2 of 5	Y	]X0
UPC-A(+2 ON)		]E3	Full ASCII Code 39(disable CDV)	D	]A4
UPC-A(+5 ON)		]E3	Full ASCII Code 39(CDV & send CD)		]A5
EAN-13(+2/+5 OFF)	F	]E0	Full ASCII Code 39(CDV & not send CD)		]A7
EAN-13(+2 ON)		]E3	Standard Code 39(disable CDV)	M	]A0
EAN-13(+5 ON)		]E3	Standard Code 39(CDV & send CD)		]A1
Code 93	L	]G0	Standard Code 39(CDV & not send CD)		]A3
Code 11(disable CDV)	J	]H0	IATA 2 of 5	R	]R0
Code 11(send one CD)		]H0	Industrial 2 of 5	V	]S0
Code 11(send two CD)		]H1	China Post Code	H	]X0
Code 11(not send CD)		]H3	Interleaved 2 of 5(CDV & send CD)	I	]I1
Telepen(ASCII)	U	]B0	Interleaved 2 of 5(CDV & not send CD)		]I3
Telepen(Numeric)		]B1	Interleaved 2 of 5(disable CDV)		]I0

## SET ID - SETTING PROCEDURES

Setting 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). (page19)**

**Step2: "A" from Group 37. (page55)**

**Step3: Scan MSI Set ID (Group 9). (page19)**

**Code 93:**

**Step1: Scan Code 93 Set ID (Group 8). (page18)**

**Step2: "G" from Group 38, Scan "9" from Group 33..(page51)**

**Step3: Scan Code 93 Set ID (Group 8). (page18)**

### 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

## CODE ID CONFIGURATION: SET 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\$



EAN128 Set ID

. P022\$



Telepen Set ID

. P009\$



Code 11 Set ID

. P011\$



Code 32 Set ID

# GROUP-9

## CODE ID CONFIGURATION: SET ID

---

China Post Code  
[ TOSHIBA Code ] Set ID



MSI Code Set ID



UK Plessy Set ID



Matrix 2 of 5 Set ID



Interleaved 2 of 5  
Set ID



Industrial 2 of 5 Set ID



Full ASCII Code39  
Set ID



RSS 14/LIMITED



RSS-Expand Set ID



RSS-14 Set ID



LABEL Code Set ID  
( Reserved )



---

# RESET



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-10

## DELAY BETWEEN BLOCKS AND CHARACTERS

---

### INTERBLOCK DELAY

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

---

### INTERCHARACTER DELAY

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

# GROUP-11

## KEYBOARD LAYOUT / CAPLOCK MODE / NUMERIC KEY

---

### KEYBOARD LAYOUT

. C010\$



**ENGLISH (USA)**

. C018\$



ENGLISH (UK )

. C011\$



GERMAN

. C012\$



FRENCH

. C009\$



JAPAN (106 key only)

. C013\$



SPANISH

. C014\$



ITALIAN

. C015\$



UNIVERSAL CODE

. C016\$



SWISS

. C017\$



CZECH (QWERTY)

---

### CAPITAL LOCK MODE

. A004\$



CAPLOCK ON

. A005\$



**CAPLOCK OFF**

. A006\$



CAPLOCK ON ( FIXED )

### NOTE:

When Barcode scanner set to Caplock Free mode.No matter of 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.) If ABCD/ABCD, abcd/abcd, ABCD/T\*E, abcd/tn\*e are on, they work independently according to their rules.

---

### NUMERIC KEY

. D017\$



NUMERIC KEY

. D018\$



ALPHANUMERIC KEY

# GROUP-12

Rs232: BAUD RATE, DATA BITS & PARITY

---

## 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-13

Rs232 : STOP BIT, HANDSHAKING, ACK/NAK, FLOW CONTROL, BCC

---

## STOP BITS

. E016\$



**1 STOP BITS**

. E017\$



2 STOP BITS

---

## HANSHAKING

. 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-14

## WAND EMULATION PARAMETER SETTING

---

. D001\$



200us

**LEVEL DURATION OF  
MINI WIDTH**

. D002\$



600uS

. D003\$



LOW

**POLARITY OF  
IDLE CONDITION**

. D004\$



HIGH

. D005\$



Bar High / Space Low

**OUTPUT OF WAND  
EMULATION**

. D006\$



Bar Low / Space High

. D007\$



PEN TYPE

**WAVE FORM**

. D008\$



FULL ASCII CODE 39

# **GROUP 15~ 33**

## **SYMBOLOLOGIES**

### **FORMATTING**

# GROUP-15

## ENABLE SYMBOLOGIES

---

. A002\$



ENABLE ALL CODE

. K010\$



CODE 32

. K001\$



**CHINA POSTAL CODE**

. L010\$



UK PLESSY CODE

. N001\$



INDUSTRIAL 2 OF 5

. M010\$



MATRIX 2 OF 5

. J001\$



**INTERLEAVED 2 OF 5**

. J010\$



**CODE 128**

. I001\$



**CODABAR**

. L014\$



TELEPEN

. 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

# GROUP-16

## DISABLE SYMBOLOGIES

---

. A003\$



DISABLE ALL CODE

. K011\$



**CODE 32**

. K002\$



CHINA POSTALCODE

. L011\$



**UK PLESSY CODE**

. N002\$



**INDUSTRIAL 2 OF 5**

. M011\$



**MATRIX 2 OF 5**

. J002\$



INTERLEAVED 2 OF 5

. J011\$



CODE 128

. I002\$



CODABAR

. L015\$



**TELEPEN**

. 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-17

SYMBOLOLOGIES : CODE 32CHINA POST CODE ( TOSHIBA CODE ),

---

**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 )

# APPENDIX

## FULL ASCII ( Code 39 ) NUMERIC TABLE

---

0 	1 
2 	3 
4 	5 
6 	7 
8 	9 

## SETTING PROCEDURE

### MIN / MAX LENGTH

STEP 1 - Scan: MIN LENGTH/ MAX LENGTH

STEP 2 - Scan : Two digits from Appendix .

STEP 3 - Scan: MIN LENGTH / MAX LENGTH

Please note that when Min Length and / or Max Length are enabled, the scanner will only read bar codes that fall into those length parameters. Bar codes shorter or longer than specified will not be read. The default lengths for these are indicated in parentheses under the Min and Max bar codes for each symbology.

---

### 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-18

SYMBOLOGIES : MSI CODE , UK PLESSY 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 PLESSY CODE**

. L012\$



CDV & SEND CD

. L013\$





**CDV & NOT SEND CD**

# APPENDIX

## FULL ASCII ( Code 39 ) NUMERIC TABLE

---

0 	1 
2 	3 
4 	5 
6 	7 
8 	9 

## SETTING PROCEDURE

### MIN / MAX LENGTH

STEP 1 - Scan: MIN LENGTH/ MAX LENGTH

STEP 2 - Scan : Two digits from Appendix .

STEP 3 - Scan: MIN LENGTH / MAX LENGTH

Please note that when Min Length and / or Max Length are enabled, the scanner will only read bar codes that fall into those length parameters. Bar codes shorter or longer than specified will not be read. The default lengths for these are indicated in parentheses under the Min and Max bar codes for each symbology.

---

### 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-19

SYMBOLOLOGIES: 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 )

# APPENDIX

## FULL ASCII ( Code 39 ) NUMERIC TABLE

---

0		1	
2		3	
4		5	
6		7	
8		9	

### SETTING PROCEDURE

#### MIN / MAX LENGTH

STEP 1 - Scan: MIN LENGTH/ MAX LENGTH

STEP 2 - Scan : Two digits from Appendix .

STEP 3 - Scan: MIN LENGTH / MAX LENGTH

Please note that when Min Length and / or Max Length are enabled, the scanner will only read bar codes that fall into those length parameters. Bar codes shorter or longer than specified will not be read. The default lengths for these are indicated in parentheses under the Min and Max bar codes for each symbology.

---

#### 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-20

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 CDV

## INTERLEAVE 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 )

# APPENDIX

## FULL ASCII ( Code 39 ) NUMERIC TABLE

---

0		1	
2		3	
4		5	
6		7	
8		9	

### SETTING PROCEDURE

#### MIN / MAX LENGTH

STEP 1 - Scan: MIN LENGTH/ MAX LENGTH

STEP 2 - Scan : Two digits from Appendix .

STEP 3 - Scan: MIN LENGTH / MAX LENGTH

Please note that when Min Length and / or Max Length are enabled, the scanner will only read bar codes that fall into those length parameters. Bar codes shorter or longer than specified will not be read. The default lengths for these are indicated in parentheses under the Min and Max bar codes for each symbology.

---

#### 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-21

SYMBOLOLOGIES : 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 )