Ez One Shot®

BAR CODE SCANNER USER'S MANUAL

DEFAULT

CHECK VERSION

Version: MAR20041021

WARNING

Please power down the host computer before connecting
this wand. This is critical to protecting both the wand and
the host from serious damage

The information contained herein is provided
to the user as a convenience. While every effort
has been made to ensure accuracy, we are not
responsible for damages that might occur
because of errors or omissions, including any
loss of profit or other commercial damage.
The specifications described herein were
current at the time of publication, but are
subject to change at any time without
prior notice.

FC and CE Compliance :
This device has been tested and found comply
with the limits for a Class B digital pursuant
to part 15 of the FCC Rules.

FC This device has been tested and found
compliant with the following listed standards
as required by the EMC Directive 89/336/EEC
as amended by directives 92/EEC and 93/68/
EEC: EN55022(1992); EN55024(1992);
EN55082-1 (1998)

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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 to180mm,
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 thereis 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).

. A001$

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 61~63 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, 19,20,22,23,24, 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) 2. Accuracy Adjustment (Group 5) 3. Customer ID Configuration (Groups 8 and 9) 4. Min/Max Length (Groups 17, 18, 19, 20, 21, 22, 24, 25) 5. ABC Codabar (Groups 22 and 23) 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	The scanner is reading correctly, except for certain bar codes of a certain length	Reset the Min/Max setting for the bar code symbology affected.
5	Rs232 Protocol Comunication setting problem	The scanner appears to be working in the RS-232 interface, but no data is m being output.	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.
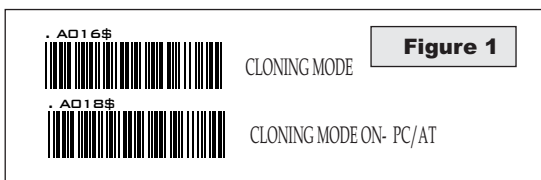
CLONING MODE

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.

. A016$
CLONING MODE

Figure 1

. A018$
CLONING MODE ON- PC/AT

.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 :
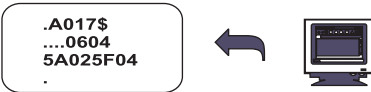
1. PROJECT ASSIGNMENTS :
1.1. Beep tone: **BEEP LOW -- HIGH** .
1.2. Capslock Mode: **CAPSLOCK ON (FIXED)**.
1.3. Reading Mode: **CONTINUOUS AUTO OFF.**
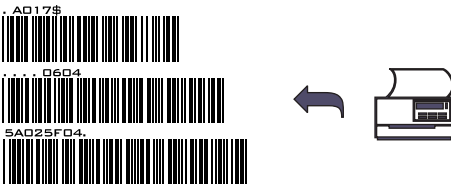
2. SETTING PROCEDURE:
2.1. Scan **BEEP LOW.--HIGH (GROUP 3).**
2.2. Scan **CAPSLOCK ON (FIXED).(GROUP 3).**
2.3. Scan **CONTINUOUS AUTO OFF. (GROUP2).**

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.


```
. A017$
.... 0604
5A025F04.
```

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$
..
..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      9 x
A025F04       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$....      X
0604          4 ✓
5A02          4 ✓
5F04.         4+.(Dot) ✓
```
≪ ***Wrong Setting Because you add " ...." After .A017$***
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 (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 (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 (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.

O PC COM PORT

DC JACK
o power adaptor

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
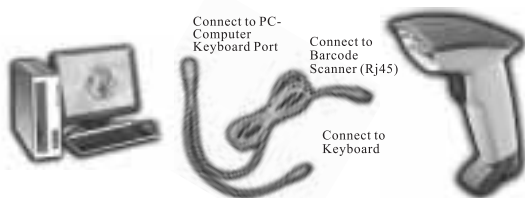
NOTES:
1. Before plugging the power adaptor into the wand, be sure the voltage, power consumption, and inner and outer DC characteristics are correct to avoid serious damage to the wand and/or the computer.

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
   (Interface Selections).
7. Scanner will beep to confirm the setting.
8. Scan a bar code to confirm that data shows on the monitor.

Connect to PC-Computer Keyboard Port

Connect to Barcode Scanner (Rj45)

Connect to Keyboard
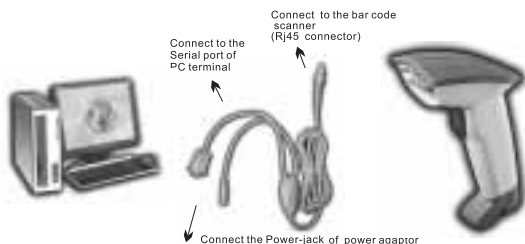
RS-232 INTERFACE

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
   (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..

Connect to the bar code scanner (Rj45 connector)

Connect to the Serial port of PC terminal

Connect the Power-jack of power adaptor

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

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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 resetthe interface setting as appropriate (including parameter settings for the RS-232 interface).
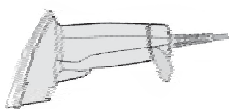
HOW TO SET PARAMETERS

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 32 - 40.
Step 4: Scan PREAMBLE or POSTAMBLE.

Min Length / Max Length
Step 1: Scan MIN LENGTH or MAX LENGTH.
Step 2: Scan two digits from Appendix 1.
Step 3: Scan MIN LENGTH or MAX LENGTH.

Accuracy Adjustment
Step1: Scan ACCURACY ADJUSTMENT.
Step 2:Scan one digit from Appendix 1.
Step 3:Scan ACCURACY ADJUSTMENT.

Customer Configuration ID (Example: Code 39)
Step 1: Scan CODE 39 SET ID from Group 8.
Step 2: Scan either one digits or two digits alphanumeric (maximum 2 digits)
        from Full ASCII table In Groups 32 - 40.
Step 3: Scan CODE 39 SET ID from Group 8.

Set A Data - (CX-Codabar, ABC Codabar, Codabar Coupling).
Step1: Scan SET A DATA.
Step 2:Scan one digits any alphanumeric character from Full ASCII Table in
        Groups 32 - 40.
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.

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GROUP-1

DEFAULT

. A001$

COMPUTER TYPE

. C004$

PC- AT

. 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

. C003$

WAND

INTERFACES SELECTION

. C008$

RS485

. C002$

RS232

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.

-- 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 notdetect
  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

BEEP TONE MODE

. F012$

OFF

. F014$

BEEP HIGH

. F016$

BEEP HIGH--LOW

. F013$

BEEP MEDIUM

. F015$

BEEP LOW--HIGH

. F017$

BEEP LOW

CHECK VERSION

. A007$

CHECK VERSION

CAPITAL LOCK MODE

. A005$

CAPLOCK OFF

. A006$

CAPLOCK ON (FIXED)

. A004$

CAPLOCK ON

NOTE:
If CAPLOCK ON (FIXED) is on, the wand will send all
characters in upper case only. (CODABAR is the exception.)
If ABCD/ABCD, abcd/abcd, ABCD/TN*E, abcd/tn*e are on,
they work independently according to their rules.

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GROUP-4

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 to16 characters added
   to the end of a scanned bar code.
3. Default value for either: None.

GROUP-5

0

1

2

3

4

5

6

7

8

9

ACCURACY ADJUSTMENT

. A010$

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 standardof 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

. P023$

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

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	]E0	4 563987 123453	12411
Preamble 145287	CODE ID AIM ID :]E0	BARCODE / DATA EAN 13 +5	

OUTPUT : 145287]E0456398712345312411

GROUP-7

SYMBOLOGIES CODE ID IDENTIFIER

SYMBOLOGIES	Factory ID	AIM ID	SYMBOLOGIES	Factory ID	AIM ID
MSI	O	]M0	CODABAR	N	]F0
EAN 8	S	]E0	DELTA Code	G	
UPC -E	E	]E0	LABEL Code	C	
UPC -A	A	]E0	UK PLESSY	P	]PO
EAN 13	F	]E0	MATRIX 2 OF 5	Y	]X0
Code 93	L	]G0	FULL ASCII Code 39	D	]A0
Code 11	J	]H0	STANDARD Code 39	M	]A0
TELEPEN	U	]B0	IATA 2 of 5	R	]R0
EAN 128	T	]C1	INDUSTRIAL 2 OF 5 (Code 2 of 5)	V	]S0
Code 128	K	]C0	China Post Code (Toshiba Code)	H	]X0
Code 32 (Code 39 PARAF)	B	]X0	INTERLEAVED 2 OF 5	I	]I0

SET ID - SETTING PROCEDURES

Settting 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 35.
Step3:   Scan MSI Set ID (Group 9).

Code 93:
Step1: Scan Code 93 Set ID (Group 9).
Step2: "G" from Group 36, Scan "9" from Group 40..
Step3:   Scan Code 93 Set ID (Group 9).

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

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

China Post Code
[TOSHIBA Code] Set ID

```
. P012$
```

MSI Code Set ID

```
. P014$
```

UK Plessy Set ID

```
. P015$
```

Matrix 2 of 5 Set ID

```
. P017$
```

Interleaved 2 of 5
Set ID

```
. P006$
```

Industrial 2 of 5 Set ID

```
. P018$
```

Full ASCLL Code39
Set ID

```
. P008$
```

RSS 14/LIMITED

```
. P019$
```

LABEL Code Set ID
(Reserved)

```
. P020$
```

RESET

```
. P023$
```

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

INTERBLOCK DELAY

. B001$

0mS

. B002$

10mS

. B003$

50mS

. B004$

100mS

. B005$

200mS

. B006$

500mS

INTERCHARACTER DELAY

. B010$

140uS

. B011$

500uS

. B012$

1mS

. B013$

4mS

. B014$

16mS

GROUP-11

KEYBOARD LAYOUT

. C010$
ENGLISH (USA)

. C018$
ENGLISH (UK))

. C011$
GERMAN

. C012$
FRENCH

. C009$
JAPAN

. C013$
SPANISH

. C014$
ITALIAN

. C015$
UNIVERSAL CODE

. C016$
SWISS

. C017$
CZECH (QWERTY)

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

GROUP-12

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

22

GROUP-13

STOP BITS

. E016$

1 STOP BITS

. E017$

2 STOP BITS

HANSHAKING

. E018$

NONE

. E019$

CTS/RTS

. E020$

Xon/ Xoff

ACK / NAK

. E023$

ON

. E024$

OFF

FLOW CONTROL: TIME OUT

. E025$

1 Sec

. E026$

3 Sec

. E027$

10 Sec

. E028$

Unlimited

23

GROUP-14

. 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

24

GROUP 15~ 31
SYMBOLOGIES
FORMATTING

GROUP-15

. 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

. 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

27

GROUP-17

. K001$

ENABLE

. K002$

DISABLE

. K003$

DISABLE CDV

. K004$

CDV & SEND CD

CHINA POSTAL CODE
[TOSHIBA CODE]

. K005$

CDV & NOT SEND CD

. K006$

MIN LENGTH (11)

. K007$

MAX LENGTH (48)

. K010$

ENABLE

. K011$

DISABLE

. K012$

LEADING SEND

CODE 32

. K013$

LEADING NOT SEND

. K014$

TAILING SEND

. K015$

TAILING NOT SEND

APPENDIX 1

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 1.
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 ▶   . P023$

29

GROUP-18

. 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 1

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 1.
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 ▶

. P023$

31

GROUP-19

. 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)

. 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

APPENDIX 1

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 1.
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 ▶

. P023$

GROUP-20

. J001$

ENABLE

. J002$

DISABLE

. J003$

DISABLE CDV

. J004$

CDV & SEND CD

. J005$

CDV & NOT SEND CDV

INTERLEAVE 2 OF 5

. J008$

First digit suppressed

. J009$

Last digit suppressed

. J014$

NO suppressed

. J006$

MIN LENGTH (6)

. J007$

MAX LENGTH (48)

. I 010$

ENABLE

. I 011$

DISABLE

. I 012$

DISABLE CDV

. I 013$

CDV & SEND CD

. I 042$

CDV & SEND CD
(1 DIGIT)

CODE 11

. I 043$

CDV & SEND CD
(2 DIGITS)

. I 014$

CDV & NOT SEND CD

. I 015$

MIN LENGTH (6)

. I 016$

MAX LENGTH (32)

APPENDIX 1

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 1.
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

. P023$

35

GROUP-21

. 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:abc/tn*e

START / STOP

. I 003$

SEND START /STOP

. I 004$

Not Sent 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 2,7,13of the datastring for use in library systems

APPENDIX 1

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 1.
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 ▶   . P023$

GROUP-22

. I O17$

ON

. I O18$

OFF

. I O35$

SET INSERT DATA*

ABC- CODABAR

. I O39$

INSERT DATA -ON

. I O36$

INSERT DATA- OFF

* *The data can be any alphanumerics of FULL ASCII Table (GROUP 32- 40)*

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 he 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's are not transmitted.

. I O22$

ON

. I O23$

OFF

. I O37$

SET INSERT DATA*

CX CODE- CODABAR

. I O40$

INSERT DATA -ON

. I O38$

INSERT DATA- OFF

The data can be any alphanumerics of FULL ASCII Table (GROUP 32- 40)

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.

38

GROUP-23

. I ☐ 19$

ON

. I ☐ 20$

OFF

. I ☐ 21$

SET INSERT DATA*

CODABAR COUPLING

. I ☐ 41$

INSERT DATA -ON

. I ☐ 26$

INSERT DATA- OFF

ABC-Codabarand 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 each bar code will be sent.

The data can be any alphanumerics of FULL ASCII Table (GROUP 32- 40)

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.

. I ☐ 33$

ON

. I ☐ 34$

OFF

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 same time, the scanner will read only Codabar-Coupling, that is, ABC-Codabar, CX-Codabar wil be considered coupling formats.

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 reminder that a setting is not yet complete.
2. If you make a mistake, forget a step, etc., scan RESET to start again.

GROUP-24

STANDARD CODE 39 & FULL ASCII 39

. G008$

ENABLE

. G009$

DISABLE

. G001$

FULL ASCII CODE 39 ENABLE

. G002$

FULL ASCII CODE 39 DISABLE

. G014$

START / STOP - SEND

. G003$

DISABLE CDV

. G004$

CDV & SEND CD

. G005$

CDV & NOT SEND CD

. G006$

MIN LENGTH (1)

. G007$

MAX LENGTH (48)

. G015$

START / STOP Not SEND

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 128

. J010$

ENABLE

. J011$

DISABLE

. J012$

MIN LENGTH (5)

. J013$

MAX LENGTH (48)

40

APPENDIX 1

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 1.
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 ▶

. P023$

GROUP-25

. 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)

APPENDIX 1

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 1.
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

. P023$

GROUP-26

. H007$

ENABLE

. H008$

DISABLE

. H009$

LEAD DIGIT SEND

UPC-E

. 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

. H055$

ADDENDA REQUIRED OFF

. H056$

ADDENDA REQUIRED ON

NOTE:
If **ADDENDA REQUIRED** is set to ON, The scanner
will only read an UPC-E bar code that has an addenda.

44

GROUP-27

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(E1) select

UPC-E EXPAND TO UPC-A

. H053$
ENABLE

. H054$
DISABLE

UPC-A EXPAND TO E EAN -13

. H068$
ENABLE

. H067$
DISABLE

RESERVED

. H069$

. H070$

NOTE:
1. If UPC E EXPAND TO UPC A FORMAT set 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-28

. H001$

ENABLE

. H002$

DISABLE

. H003$

LEAD DIGIT SEND

UPC- A

. H004$

LEAD DIGIT NO SEND

. H005$

CHECK DIGIT SEND

. H006$

CHECK DIGIT NO SEND

. 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

. H059$

ADDENDA REQUIRED OFF

. H060$

ADDENDA REQUIRED ON

NOTE:
If **ADDENDA REQUIRED** is set to ON, The scanner
will only read an UPC-A bar code that has an addenda.

GROUP-29

. H019$

ENABLE

. H020$

DISABLE

. H021$

LEAD DIGIT SEND

EAN-8

. H022$

LEAD DIGIT NO SEND

. H023$

CHECK DIGIT SEND

. H024$

CHECK DIGIT NO SEND

. H029$

+ 5 ON

. H030$

+ 5 OFF

. H031$

+ 2 ON

. H032$

+ 2 OFF

ADD ON SUPPLEMENT

. H043$

ADD A SPACE ON

. H044$

ADD A SPACE OFF

. H061$

ADDENDA REQUIRED OFF

. H062$

ADDENDA REQUIRED ON

NOTE:
If **ADDENDA REQUIRED** is set to ON, The scanner
willonly read an **EAN-8** bar code that has an addenda.

47

GROUP-30

. 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

. H057$
ADDENDA REQUIRED OFF

. H058$
ADDENDA REQUIRED 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 ISBN or ISBN will be considered as an extension of EAN-13, If ISSN or ISBN need to be read , EAN13 must be enabled. If ISSN and ISBN need to be read with addenda, EAN13 must be enabled with ADDENDA REQUIRED set to ON.

GROUP-31

. M001$

ENABLE

. M002$

DISABLE

. M003$

CODE ID ENABLE

. M004$

CODE ID DISABLE

EAN/ UCC- 128

. M005$

FUNC 1CHEAR SEND

. M006$

FUNC 1 CHEAR NOT SEND

. M007$

DEFINE EAN 128

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 32- 40).

String format :

]C1	DATA CHARACTERS	<GS>	DATA CHARACTERS

Setting Procedure:
1:Scan DEFINE EAN128.
2: Scan ASCII Code
3: Scan DEFINE EAN128.

ISBN

. H049$

ISBN ON

. H050$

ISBN OFF

ISSN

. H051$

ISSN ON

. H052$

ISSN OFF

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

49

GROUP-32

%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-33

$P

DLE

$Q

DC1

$R

DC2

$S

DC3

$T

DC4

$U

NAK

$V

SYN

$W

ETB

$X

CAN

$Y

EM

$Z

SUB

%A

ESC

%B

FS

%C

GS

%D

RS

GROUP-34

/ A

!

%E

US

/ C

#

%

%

%G

<

/ Z

:

%I

>

%V

@

SP

/ B

"

$

$

/ F

&

%F

;

%H

=

%J

?

GROUP-35

/ H

(

/ G

'

/I

)

/ J

*

/ L

,

.

+

+

-

/

/

A

A

B

B

C

C

D

D

E

E

F

F

GROUP-36

G

H

I

J

K

M

L

O

N

Q

P

S

R

U

T

GROUP-37

V

V

W

W

X

X

Y

Y

Z

Z

%K

[

%L

\

%M

]

%N

^

%O

-

%W

`

+A

a

+B

b

+C

c

+D

d

GROUP-38

+E

e

+F

f

+G

g

+H

h

+I

i

+J

j

+K

k

+L

l

+M

m

+N

n

+O

o

+P

p

+Q

q

+R

r

+S

s

GROUP-39

+T

†

+U

u

+V

v

+W

w

+X

x

+Y

y

+Z

z

%Q

|

%R

}

%P

{

%T

DEL

%S

~

%V/ F

ENTER

GROUP-40

‖‖‖‖‖ ‖‖‖ ‖‖‖
0

‖‖‖‖‖ ‖‖‖ ‖‖‖
1

‖‖‖‖‖ ‖‖‖ ‖‖‖
2

‖‖‖‖‖ ‖‖‖ ‖‖‖
3

‖‖‖‖‖ ‖‖‖ ‖‖‖
4

‖‖‖‖‖ ‖‖‖ ‖‖‖
5

‖‖‖‖‖ ‖‖‖ ‖‖‖
6

‖‖‖‖‖ ‖‖‖ ‖‖‖
7

‖‖‖‖‖ ‖‖‖ ‖‖‖
8

‖‖‖‖‖ ‖‖‖ ‖‖‖
9

GROUP-41

$T A

F1

$T B

F2

$T C

F3

$T D

F4

$T E

F5

$T F

F6

$T G

F7

$T H

F8

$T I

F9

$T J

F10

$T K

F11

$T L

F12

$T M

Home

$T N

End

GROUP-42

$T O

Right

$T P

Left

$T Q

Up

$T R

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

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GROUP-43
TROUBLE SHOOTING

The Ezscan is simple to install and use. Most operational problems can be attributed to:

INCORRECT INTERFACE CONNECTION
INCORRECT CONFIGURATION SETUP
POOR BAR CODE QUALITY

GENERAL PROCEDURES

1. First, make sure the scanner is firmly connected to the host computer, when attached correctly, the scanner will emit one long beep. When the trigger is pressed, LED will flash.

2. Once the power is on, try scanning some sample bar codes from this user's guide. The scanner should beep and the LED should flash to indicate a good read in the default configuration . If reading the bar code does not result in a good read, there may have been a problem with the scanning technique or the interface configuration setting. Reset the scanner to default.

3. If the scanner indicates a good read,but no output of data to the monitor, please check the cabling connect

KEYBOARD INTERFACES PROBLEMS.

In general, the Keyboard Wedge interface is trouble free, but there still are some things to check in the event of a problem.

Do you have the correct cable?
Most computers use an XT/AT-compatible keyboard. Be sure you have the proper cable for your computer.

Does the keyboard work?
Since the keyed-in data from keyboard must pass through the decoder, the cabling connections are correct if the keyboard is functioning.

Can your computer accept the data fast enough?
Your computer's BIOS has a feature related to keyboard typing speed. Try to set the Intercharacter Delay feature to stimulate the keystroke entry speed.

Does keyboard port supply enough power ?
Most notebook computers do not supply enough power to the scanner. The symptom of insufficient power is a lower "good read" rate (since there is not enough power to properly support the scanning operation).

GROUP-44
TROUBLE SHOOTING

Rs232 INTERFACE PROBLEMS

Once you read bar code, there is no output on the monitor: the symptoms may be caused by:
1. If the handshaking Have you set the protocol of Rs232 like Baud rate, data bits, parity and handshaking etc. of a scanner to match to the PC terminal setting? Solution: reset the above mentioned Rs232 protocol of scanner to match to PC protocol.
2. Pls check if the cable pinout assignment of bar code match to the pinout assignment of PC terminal?

No power supply to scanner;
1. Do you connect the right power adaptor to the scanner?
2. Does scanner connect the cable with right pinout which match to PC-terminal?

INTERFACE PROBLEMS

Are you using the Wand Emulation mode with Code 39 output? If so, is your decoder set to accept Code 39 data?
Check the scanner's configuration setting to make sure it can accept the bar code symbology you are trying to read.

Although the cable seems to connect properly, does the scanner not send data to the host computer?
There are no industrial standards for scanner interface cables, so even if they look alike and have similar connector, they might not be alike. For example, cables for Keyboard Wedge and Wand Emulation are similar, but they are not interchangeable due to different pin assignments. Be sure the cable you are using attaches correctly to the matching connector.

CONFIGURATION SETUP

Are you setup for the right Interface?
Are you set up for the right interface? Did you select the Keyboard Wedge cable but set the scanner for RS-232 or Wand Emulation? Or did you change the Keyboard cable to RS-232 but forget to set the scanner interface to RS-232 as well? Set the scanner to its default settings, then selectthe correct interface based upon the cable and input you are using.

Sympton ----The LED lighting is stuck, and no function at all, even triggered the scanner.

Solution ---- Set the Scanner to Default condition, and choose the right interfaces

Is the proper symbology enabled?
Each bar code symbology can be individually enabled or disabled.It is suggested that you enable only those that you will be scanning,thereby eliminating the possibility of mis reads from the scanningof other symbologies.

Does the selected the bar code symbology configuration match the bar code(s) being read?
Scanned data from each bar code symbology can be restrictedto eliminate the scanning of unused symbologies. The restrictionsare individually set for eachsymbology.

POOR BAR CODE QUALITY

The third problem area has nothing to do with the scanner, but rather the printed quality of the bar code and/or the scanning technique employed.

TOLERANCE OF BAR CODE

A bar code may have a tolerance. Normally, the tolerances are caused by bar code font software or a printer. Software with a proven reputation should be chosen to generate bar codes. If the printed bar codes are distorted, the scanner might not recognize them.

It is very difficult to get a good read from a poor quality bar code unless it is scanned many times. As the quality of the symbology drops, the chances for undetected error increase. A bar code Check Digit Verification (CDV) should be used to check the quality of the suspect bar codes.

LABELS (PAPER & COLOR & PRINTER)

The light source of a bar code scanner is generally red, so there are some restrictions for the printing of labels. Care should be taken whenchoosing materials, especially color inks and papers. Sometimes the combination of the label color and the color of the ink can , in effect, blind the scanner. Media with a shiny surface will also cause reading difficulties for scanners.

Moreover, poor printing quality can also result in reading difficulties for the scanner. Bad printing may be caused by the type of printer used; dot matrix and inkjet printers will not produce high quality bar codes. Also check to make sure the ink, ribbon, or toner in good supply.

APPENDIX 2

DEFAULT

GROUP		PARAMETER	DEFAULT
1		Computer Type	PC-AT
		Interfaces	*
2		Reading Mode	Trigger
3		Beep Tone Mode	1.Beep Medium
		Capital lock Mode	2.Caplock Off
4		Preamble & Postamble	Off
5		Accuracy Adjustment	2
6 ~ 9		Enable & Disable Code ID	Off
10		Interblock Delay	0ms
		Inter-character Delay	140us
11		Keyboard Layout	English (USA)
		Terminator	CR, CR+LF
12		Baud Rate	9600
		Data Bits & Parity	8 Bit None
13		Stop Bits	1 stop bit
		Handshaking	None
		ACK / NAK	Off
		Flow Control TimeOut	1 Sec
14		Level duration of Mini Width	200us
		Polarity Of Idle Condition	High
		Output of Wand Emulation	Bar High/ Space Low
		Wave Form	Full ASCII 39
15 ~ 16		Enable and Disable Symbologies	
		Code 32	Disable
		China Postal Code	Enable
		UK Plessy Code	Disable
		Industrial 2 of 5	Disable
		Matrix 2 of 5	Disable
		Interleaved 2 of 5	Enable
		Code 128	Enable
		Codabar	Enable
		Telepen	Disable
		UPC-A	Enable
		UPC-E	Enable
		EAN-8	Enable
		EAN-13	Enable
		MSI	Disable
		Code 39	Enable
		Code 11	Enable
		Code 93	Disable
		EAN-128	Enable
		IATA	Disable
17	1	**China Post Code**	
		Enable/ Disable	Enable
		Check Digits	Disable CDV
		Min Length	11 digits
		Max Length	48 digits
	2	**Code 32**	
		Enable/ Disable	Disable
		Leading send/ not send	Send
18	1	**MSI**	
		Enable/ Disable	Disable
		Check Digits	CDV & send CD
		Check Digits Mode	Single MOD 10

* The interface setting of scanner does not have certain default value, the default of interface of scanner will be set according to customer order.

APPENDIX 2

DEFAULT

GROUP		PARAMETER	DEFAULT
18	2	**UK Plesssy**	
		Enable / Disable	Disable
		Check Digits	CDV & not send CD
19	1	**IATA**	
		Enable / Disable	Enable
		Check Digits	Disable CDV
		Min Length	6 digits
		Max Length	48 digits
	2	**Code 93**	
		Enable/ Disable	Disable
		Min Length	6 digits
		Max Length	48 digits
	3	**Telepen**	
		Enable/ Disable	Disable
		Telepen ASCII / Number	Number
20	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 11**	
		Enable/ Disable	Disable
		Check Digits	Disable CDV
		Min Length	6 digits
		Max Length	32 digits
21	1	**Codabar**	
		Enable/ Disable	Enable
		Check Digits	Disable CDV
		Min Length	6 digits
		Max Length	48 digits
		ST/SP: Abcd/abcd, abcd/tn*e, ABCD/ABCD, ABCD/ TN*E	ABCD/ABCD
		Start (ST)/ Stop (SP) send	Send
		CLSI Format	ON
22	1	**ABC - Codabar**	
		ON/OFF	Off
		Insert Data	Off
	2	**CX-Codabar**	
		Insert Data	Off
		ON/OFF	Off
23		**Codabar- Coupling**	
		ON/OFF	Off
		Insert Data	Off
		Adjacent Required	Off
24	1	**Code 39**	
		Full ASCII 39 Enable/ Disable	Enable
		Check Digits	DisableCDV
		Start / Stop	Not Send
		Min Length	1 digits
		Max Length	48 digits
	2	**Code 128**	
		Enable/ Disable	Enable
		Check Digits	Disable CDV
		Min Length	5 digits
		Max Length	48 digits

APPENDIX 2

DEFAULT

GROUP		PARAMETER	DEFAULT
25	1	**Industrial2 of 5**	
		Enable/ Disable	Enable
		Check Digits	Disable CDV
		Min Length	6 digits
		Max Length	48 digits
	2	**Matrix 2 of 5**	
		Enable/ Disable	Enable
		Check Digits	Disable CDV
		Min Length	6 digits
		Max Length	48 digits
26		**UPC-E**	
		Enable/ Disable	Enable
		Check Digits	Send
		Lead Digits	Send
		Add a space	Off
		Addenda required	Off
		+5 On/Off	Off
		+2 On/Off	Off
27		**UPC-A & E, EAN8 Expand, UPCE systems number**	
		UPC E (0) On/ Off	On
		UPC E (1) On/ Off	Off
		UPC-E expand to UPCA	Disable
		UPC-A expand to EAN13	Disable
28		**UPC-A**	
		Enable/ Disable	Enable
		Check Digits	Send
		Lead Digits	Send
		Add a space	Off
		Addenda required	Off
		+5 On/Off	Off
		+2 On/Off	Off
29		**EAN-8**	
		Enable/ Disable	Enable
		C heck Digits	Send
		Lead Digits	Send
		Add a space	Off
		Addenda required	Off
		+5 On/Off	Off
		+2 On/Off	Off
30		**EAN-13**	
		Enable/ Disable	Enable
		Check Digits	Send
		Lead Digits	Send
		Add a space	Off
		Addenda required	Off
		+5 On/Off	Off
		+2 On/Off	Off
31		**EAN/UCC128**	
		Enable/ Disable	Enable
		Code ID	Disable
		Func 1 Chear send	Not Send
		ISSN □On / Off	Off
		ISBN	Off
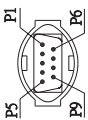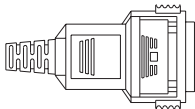
Cable Pin Assignment

INTERFACES:

1. TTL , Wand Emulation
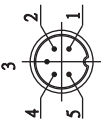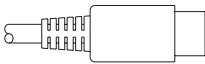
1.1) AMP (D-Sub 9Pin):

Pin	Signal
2	Data
7	GND
9	+5VCC

1.2) Din 5 male (240 degree):

Pin	Signal
1	+ 5Vcc
2	Data
3	GND
4	N/A
5	N/A

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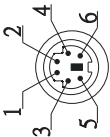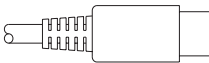
2. Keyboard Interface:
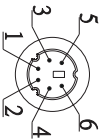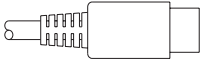
Type of connector:
2.1) PS/2 Mini Din6 Female:

Pin	Signal
1	PC Data
2	NC
3	GND
4	+5Vcc
5	PC-Clk
6	NC

2.2) PS/2 Mini Din6 Male:
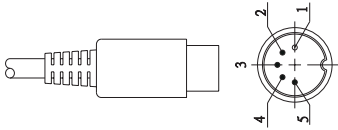
Pin	Signal
1	KB- Data
2	NC
3	GND
4	+5Vcc
5	KB-CLK
6	NC

Type of connector:
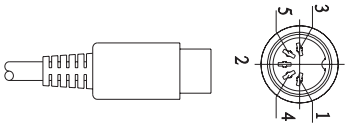
2.3) PC-AT : Din 5 Male :

Pin	Signal
1	KB-Clk
2	KB-Data
3	NC
4	GND
5	+5VCC

2.4) PC-AT : Din 5 Female
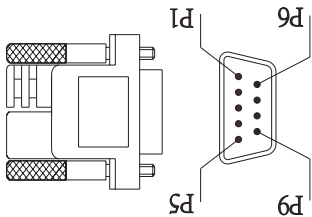
Pin	Signal
1	PC-Clk
2	PC-Data
3	NC
4	GND
5	+5VCC

3.RS232 Interfaces:

3.1) DB9F

Pin	Signal
2	TXD(Out)
3	RXD(In)
5	GND
7	CTS(In)
8	RTS(Out)
9	+5Vcc

3.2) DB25F

Pin	Signal
2	RXD(In)
3	TXD (out)
4	CTS (In)
5	RTS (Out)
7	GND
16	+5VCC
25	+5VCC