

***IDT  TECH***®

TM  
***VERSASCAN  
BAR CODE  
SCANNER  
USER'S  
MANUAL***





# WARNING

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

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## **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.

**CE** 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

ID TECH's VersaScan CCD Scanner is specially designed to deliver high-end bar code reading performance. The scanner utilizes exceptional decoding technology. One-time settings are easily made by scanning set-up bar codes in this handy user's manual. The VersaScan enables quick scanning of bar codes up to 10 inches in length. At a scan rate of 230 scans per second, low-quality or damaged bar codes, as well as small or high-density bar codes, can be read with exceptional speed and accuracy. This rugged scanner contains no moving parts, yet it is exceptionally lightweight and designed to fit comfortably in the hand for extended periods of use. The cable is detachable for easy replacement or to change the interface.

## GENERAL

The VersaScan has many settings that can be used to configure the unit to the requirements of a particular application. For most applications, 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 or configuration.



## EZ TROUBLESHOOTING

The VersaScan 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).



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 59 for further assistance.

**Figure 2**

		<b>Solutions</b>	
<b>No</b>	<b>Kind of Troubles</b>	<b>Symptoms</b>	
1	Computer Type (Group 1)	Scanner seems to be performing as usual, but no data is being output.	<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 exact computer type immediately.</li> </ol>
2	Interfaces Selections (Group 1)	The scanner does not scan when the trigger is depressed.	<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>
3	Setting Procedure has not completed, (Setting Need Triple Shot scanning) ----- Group - 4,5,8,9, 17, 18, 19,20,22,23,24, 25,31	<p>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:</p> <ol style="list-style-type: none"> <li>1. Preamble, Postamble (Group 4)</li> <li>2. Accuracy Adjustment (Group 5)</li> <li>3. Customer ID Configuration (Groups 8 and 9)</li> <li>4. Min/Max Length (Groups 17, 18, 19, 20, 21, 22, 24, 25)</li> <li>5. ABC Codabar (Groups 22 and 23)</li> <li>6. CX-Codabar (Groups 22 and 23)</li> <li>7. Coupling Codabar (Groups 22 and 23)</li> <li>8. EAN 128 (Group 31)</li> </ol>	<ol style="list-style-type: none"> <li>1. Follow the procedures for these settings at the appropriate pages.</li> <li>2. The scanner will beep three times for an incomplete setting.</li> <li>3. Scan RESET to try a setting again.</li> </ol>
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 Communication 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.

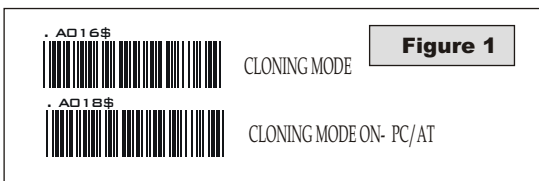
# CLONING MODE

## WHAT IS CLONING MODE?

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

## HOW SHOULD THE CLONING WORK?

1. Using this guide, make all the necessary settings for one scanner.
2. Scan the CLONING MODE bar code shown in Figure 1.
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 scanner 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 equals 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.**

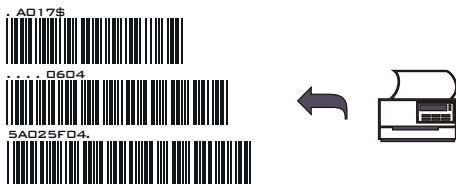
### 2. SETTING PROCEDURE:

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

3. Scan **CLONING MODE (Figure 1).** 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 scanners that must be programmed with the same settings as the first scanner. Be sure to scan from the first row to the second and so on sequentially, top to bottom.

## CORRECT SETTING

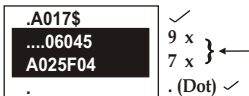
.A017\$		
....	4	
0604	4	
5A02	4	
5F04	4	
.		.(Dot)

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

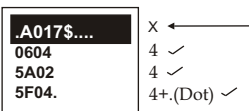
## WRONG SETTING



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



**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.



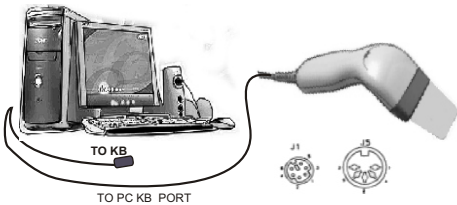
**Wrong Setting :** The .A017\$ is a  
FIXED parameter for setup entering.  
It is an unchangeable parameter.  
**Never add, delete or rearrange data in  
the FIRST row.**

# GETTING STARTED

## HOW TO CONNECT THE SCANNER 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 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.



### 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 center positive 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 @ 300mA or greater
3. The jack is center positive polarity.

#### TO PC COM PORT



Check the power adaptor if:

1. Input of AC current 110V/ 220V match to the power supply standard of your country.
2. Output of Power is 5V DC
3. The jack is center positive

## USB Interface

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.

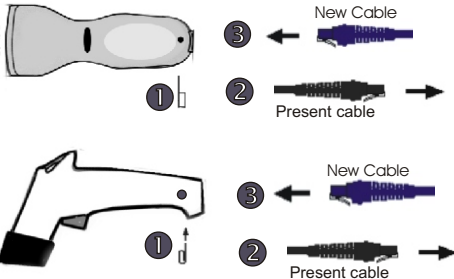


## HOW TO CHANGE A CABLE

The VersaScan is 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 THE PARAMETERS

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

1. Aim the scanner directly at the bar code representing the function/parameter you want to set.
2. When two beeps are heard, the new setting will have been defined or updated into the memory processor.

All **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:

**. ADD 1 \$**



**DEFAULT**  
Setting code



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

Scan **CLR PRE/POSTAMBLE**. Scan **PREAMBLE** or **POSTAMBLE**. Scan any alphanumeric from Full ASCII Table in Groups 32-40. Scan **PREAMBLE** or **POSTAMBLE**.

### 2.2. Min Length / Max Length:

Scan **MIN LENGTH** or **MAX LENGTH**. Scan two digits from Appendix 1. Scan **MIN LENGTH** or **MAX LENGTH**.

### 2.3. Accuracy Adjustment:

Scan **ACCURACY ADJUSTMENT**. Scan one digit from Appendix 1. Scan **ACCURACY ADJUSTMENT**.

### 2.4. Customer configuration ID -- ( Example: Code 39 )

Scan **CODE 39 SET ID** from Group 8. Scan alphanumeric (maximum 2 digits) from Full ASCII table in Groups 32 -40. Scan **CODE 39 SET ID** from Group 8.

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

Scan **SET A DATA**. Scan any alphanumeric character from Full ASCII Table in Groups 32 -40. 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 **RESET** to start again.

**RESET**



# -- GROUP 1 --

## INTERFACE SELECTION, COMPUTER TYPE, DEFAULT.

**DEFAULT**



**PC- AT**



MAC ADB

**COMPUTER TYPE**



PC-XT



NOTEBOOK\*

SYMPTOMS	SOLUTION
Scanner seems to be performing as usual, but no data is being output.	<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 exact computer type immediately.</li> </ol>

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.



KEYBOARD& USB



WAND

**INTERFACES SELECTION**



RS485



RS232

SYMPTOMS	SOLUTION
The scanner does not scan when the trigger is depressed.	<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>

The VersaScan 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 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 shift 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.

# -- GROUP 3 --

## **CHECK VERSION, BEEP TONE ,CAPLOCK MODE**

---

### **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

### **NOTES**

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

# -- GROUP 4 --

## PREAMBLE & POSTAMBLE

---

### PREAMBLE & POSTAMBLE ( PREFIX AND SUFFIX )



### 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}

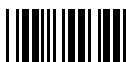
### NOTES:

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 --

## ENABLE AND DISABLE CODE ID

---

### 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	JE0		
Preamble 145287	CODE ID AIM ID : JE0	BARCODE / DATA EAN 13 +5	
<b>OUTPUT : 145287]E0456398712345312411</b>			

# -- GROUP 7 --

## SYMBOLOGIES CODE ID IDENTIFIER, SET ID

### SYMBOLOGIES CODE ID IDENTIFIER

SYMBOLOGIES	Factory ID	AIM ID	SYMBOLOGIES	Factory ID	AIM ID
MSI	O	JM0	CODABAR	N	JF0
EAN 8	S	JE0	DELTA Code	G	
UPC -E	E	JE0	LABEL Code	C	
UPC -A	A	JE0	UK PLESSY	P	JPO
EAN 13	F	JE0	MATRIX 2 OF 5	Y	JX0
Code 93	L	JG0	FULL ASCII Code 39	D	JA0
Code 11	J	JH0	STANDARD Code 39	M	JA0
TELEPEN	U	JB0	IATA 2 of 5	R	JR0
EAN 128	T	JC1	INDUSTRIAL 2 OF 5 ( Code 2 of 5 )	V	JS0
Code 128	K	JC0	China Post Code ( Toshiba Code )	H	JX0
Code 32 ( Code 39 PARAF)	B	JX0	INTERLEAVED 2 OF 5	I	JJ0

## SET ID - SETTING PROCEDURES

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 --

## 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

---

. P012\$



China Post Code  
[ TOSHIBA Code ] Set ID

. P014\$



MSI Code Set ID

. P015\$



UK Plessy Set ID

. P017\$



Matrix 2 of 5 Set ID

. P006\$



Interleaved 2 of 5  
Set ID

. P018\$



Industrial 2 of 5 Set ID

. P008\$



Full ASCLL Code39  
Set ID

. P019\$



Rss 14/Limited

. P020\$



LABEL Code Set ID  
( Reserved )

---

# 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 --

## DELAY BETWEEN BLOCKS AND CHARACTERS

---

. B001\$



**0mS**

. B002\$



10mS



50mS



100mS



200mS



500mS

### INTERBLOCK DELAY

---

. B010



**140uS**

. B011\$



500uS

. B012



1mS

. B013



4mS

. B014



16mS

### INTERCHARACTER DELAY

# -- GROUP 11 --

## TERMINATOR AND KEYBOARD LAYOUT

---

### 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 --

## **Rs232: BAUD RATE, DATA BITS & PARITY**

---

### **BAUD RATE**

**. E 1**



300

**. E 2**



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**

---

### **STOP BITS**



**1 STOP BITS**



2 STOP BITS

---

### **HANSHAKING**



**NONE**



RTS enabled in  
Communication



RTS enable at  
Power up

---

### **ACK / NAK**



ON



**OFF**

---

### **FLOW CONTROL: TIME OUT**



**1 Sec**



3 Sec



10 Sec



Unlimited

# -- GROUP 14--

## WAND EMULATION PARAMETER SETTING



**LEVEL DURATION OF  
MINI WIDTH**



**POLARITY OF  
IDLE CONDITION**



**OUTPUT OF WAND  
EMULATION**



**WAVE FORM**



**GROUP 15~ 31**  
**SYMBOLLOGIES**  
**FORMATTING**

# -- GROUP 15 --

## ENABLE and DISABLE SYMBOLOGIES

---

### ENABLE

. 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

### DISABLE

. 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

# -- GROUP 16 --

## **ENABLE and DISABLE SYMBOLOGIES**

---

### **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 17 --

## SYMBOLOGIES FORMATTING: CHINA POST CODE ( TOSHIBA CODE ), CODE 32

---

. 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

## FULL ASCII ( Code 39 ) NUMERIC TABLE



### 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 length 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 1

## FULL ASCII ( Code 39 ) NUMERIC TABLE



### 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 length 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 --

## SYMBOLOGIES FORMATTING: CODE IATA , CODE 93, TELEPEN.

---

. NO17\$



**ENABLE**

. NO18\$



DISABLE

. NO19\$



**DISABLE CDV**

. NO20\$



CDV & SEND CD

**IATA**

. NO21\$



CDV & NOT SEND CDV

. NO22\$



MIN LENGTH ( 6 )

. NO23\$



MAX LENGTH ( 48 )

. GO10\$



ENABLE

. GO11\$



**DISABLE**

**CODE 93**

. GO12\$



MIN LENGTH ( 6 )

. GO13\$



MAX LENGTH ( 48 )

. LO14\$



ENABLE TELEPEN

. LO15\$



**DISABLE TELEPEN**

**TELEPEN**

. LO20\$



TELEPEN ASCII

. LO21\$



TELEPEN NUMBER

# APPENDIX 1

## FULL ASCII ( Code 39 ) NUMERIC TABLE



### 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 length 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 FORMATTING: INTERLEAVED 2 OF 5 , CODE 11.

---

. 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



### 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 length 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 FORMATTING: CODABAR

---



**ENABLE**



DISABLE

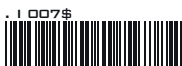


**DISABLE CDV**



CDV & SEND CD

### CODABAR



CDV & NOT SEND CD



MIN LENGTH ( 6 )



MAX LENGTH ( 48 )



ST/SP: abcd/abcd



**ST/SP: ABCD/ABCD**



ST/SP: ABCD/TN\*E



ST/SP:abcd/tn\*e

### START / STOP



**SEND START /STOP**



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



CLSI FORMAT ON



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



### 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 length 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 22 --

### SYBLOGIES FORMATTING: ABC-CODABAR, CX- CODABAR

---

. I 017\$



ON

I 018



OFF

. I 035



SET INSERT DATA\*

### ABC- CODABAR

. I 039\$



INSERT DATA -ON

. I 3



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 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's are not transmitted.

---

. I 022\$



ON

. I 023\$



OFF

. I 037



SET INSERT DATA\*

### CX CODE- CODABAR

. I 040\$



INSERT DATA -ON

. I 038



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.

# -- GROUP 23--

## SYMBOLOGIES FORMATING: CODABAR COUPLING, ADJACENT MUST ON .

. I 019\$



ON

I 020



OFF

. I 021\$



SET INSERT DATA\*

### CODABAR COUPLING



INSERT DATA -ON

. I 026\$



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 each barcode will be sent.

### 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 033\$



ON

. I 034\$



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 will 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.

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

# -- GROUP 24 --

## SYMBOLOGIES FORMATTING: CODE 128, STANDARD CODE39, FULL ASCII CODE 39.

---

### 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 )

# APPENDIX 1

## FULL ASCII ( Code 39 ) NUMERIC TABLE



### 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 length 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 25 --

**SYMBOLOGIES FORMATTING:  
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 )

# APPENDIX 1

## FULL ASCII ( Code 39 ) NUMERIC TABLE



### 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 length 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 26 --

## SYMBOLOLOGIES FORMATTING: UPC-E

---

. 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.

# -- GROUP 27 --

## SYMBOLOGIES FORMATTING: UPC-E SYSTEM NUMBER, UPC-E, UPC-A & EAN 8 EXPAND.

---

### UPC E0



E ( 0 ) OFF



**E ( 0 ) ON**

---

### UPC E1



E ( 1 ) ON



**E ( 1 ) OFF**

### NOTE:

Most UPC Bar codes lead with 0 number systems, For these bar codes use UPC E(0) Selection, For the barcodes that lead with the 1 number, use UPC(E1) select

---

### UPC-E EXPAND TO UPC-A



ENABLE



**DISABLE**

---

### UPC-A EXPAND TO E EAN -13



ENABLE



**DISABLE**

---

### RESERVED



**H**

### NOTE:

1. If UPC E EXPAND TO UPC AFORMAT 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 --

## SYMBOLOGIES FORMATTING: UPC -A

---

. 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 --

## SYMBOLOLOGIES FORMATTING: EAN 8

---

. H019\$



**ENABLE**

. H020\$



DISABLE

. H021\$



**LEAD DIGIT SEND**

. 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 will only read an **EAN-8** bar code that has an addenda.

# -- GROUP 30 --

## SYMBOLOGIES FORMATTING: EAN13

---

. 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 ISSN 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 --

## SYBLOGIES FORMATTING: EAN/UCC-128

. M001



ENABLE

. M002



DISABLE

. M003\$



CODE ID ENABLE

. M004



CODE ID DISABLE

**EAN/ UCC- 128**

. M005\$



FUNC 1 CHEAR SEND

**M**



FUNC 1 CHEAR NOT SEND

**M**



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	DATACHARACTERS	<GS>	DATACHARACTERS
----	----------------	------	----------------

### 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 EAN13 must be enabled. Otherwise the scanner will not able to read the ISSN or ISBN.

# -- GROUP 32 --

## FULL ASCII TABLE ( CODE 39 )

---

%L  
  
NUL

\$B  
  
STX

\$D  
  
EOT

\$F  
  
ACK

\$H  
  
BS

\$J  
  
LF

\$L  
  
FF

\$N  
  
SO

\$A  
  
SOH

\$C  
  
ETX

\$E  
  
ENQ

\$G  
  
BEL

\$I  
  
HT

\$K  
  
VT

\$M  
  
CR

\$O  
  
SI

-- GROUP 33 --

**FULL ASCII TABLE ( CODE 39 )**

---

\$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 --

**FULL ASCII TABLE ( CODE 39 )**

---

/ A  
  
!

% E  
  
US

/ C  
  
#

%  
  
%

% G  
  
<

/ Z  
  
:

% I  
  
>

% V  
  
@

  
SP

/ B  
  
"

\$  
  
\$

/ F  
  
&

% F  
  
;

% H  
  
=

% J  
  
?

-- GROUP 35 --

**FULL ASCII TABLE ( CODE 39 )**

---



-- GROUP 36 --

**FULL ASCII TABLE ( CODE 39 )**

---

**G**  
  
G

**I**  
  
I

**K**  
  
K

**L**  
  
L

**N**  
  
N

**P**  
  
P

**R**  
  
R

**T**  
  
T

**H**  
  
H

**J**  
  
J

**M**  
  
M

**O**  
  
O

**Q**  
  
Q

**S**  
  
S

**U**  
  
U

-- GROUP 37 --

**FULL ASCII TABLE ( CODE 39 )**

---

V  
  
V

X  
  
X

Z  
  
Z

%L  
  
\  
%

%N  
  
^  
%

%W  
  
,  
%

+B  
  
b

+D  
  
d

W  
  
W

Y  
  
Y

%K  
  
[  
%

%M  
  
]  
%

%□  
  
-  
%

+A  
  
a

+C  
  
c

-- GROUP 38 --

**FULL ASCII TABLE ( CODE 39 )**

---



e



f



g



h



i



j



k



l



m



n



o



p



q



r



s

# -- GROUP 39 --

## FULL ASCII TABLE ( CODE 39 )

---



-- GROUP 40 --

**FULL ASCII ( CODE 39 ) NUMERIC TABLE**

---



# -- GROUP 41 --

## FUNCTION CODE ( CODE 39 ) FOR PC AT

---



# -- GROUP 42 --

## FUNCTION CODE ( CODE 39 ) FOR PC AT

---

\$TQ



Right

\$TP



Left

\$TQ



Up

\$TR



Down

\$TS



Page Up

\$TT



Page Down

\$TU



Tab

\$TV



Back Tab

\$TW



Esc

\$TX



Enter

\$TY



BS

\$TZ



Ins

\$T%K



Del



## -- GROUP 43 -- TROUBLE SHOOTING

---

The VersaScan 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, the 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, check the cabling connections.

### KEYBOARD INTERFACES PROBLEMS.

In general, the Keyboard Wedge interface is trouble free, but there are 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.



## -- GROUP 44 -- TROUBLE SHOOTING

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### **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).

## 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 a similar looking 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.



## -- GROUP 45 -- TROUBLE SHOOTING

---

### 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 select the correct interface based upon the cable and input you are using.

**Sympton --- The LED light is stuck ,and not function at all,**

**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 misreads from the scanning of 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 restricted to eliminate the scanning of unused symbologies. The restrictions are individually set for eachsymbology.



## -- GROUP 46 -- TROUBLE SHOOTING

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### 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.

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.

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 chance for undetected error increases. 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 when choosing 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.

***ID TECH***

10721 Walker Street  
Cypress, California 90630  
(714)761-6368  
<http://www.id-tech.net>