# Introduction Installation- Keyboard Wedge

- 1) First of all, you must switch off power for the terminal/computer.
- 2) Disconnect the keyboard cable from the back of the terminal/computer.
- Connect the appropriate interface cable to the scanner and to the terminal/computer.
- 4) Turn the terminal/computer power on.

#### **RS-232**

- 1) Disconnect power to the terminal/computer.
- Connect the appropriate interface cable and external power supply (DC adapter) to the scanner.
- Plug the serial connector into the serial port on the back of your computer/terminal. Tighten the two screws to secure the connector to the port.
- 4) Plug the power pack into power source.
- 5) Once the scanner has been fully connected, turn the terminal/computer power back on.

#### USB

#### - USB (Simulate with RS-232)

- 1) Connect the USB cable between scanner and PC.
- 2) Windows will automatically detect the USB device.
- The driver setup appears. Insert the CD-ROM into your PC.
- Install the USB driver. (Firmware must be version 3.00 or up.)
- 5) Refer to Interface selection, set USB to Enable.

#### - USB (Simulate with Keyboard wedge)

- 1) Connect the USB cable between scanner and PC.
- 2) Windows will automatically detect the USB device.

# **Note:** If any of the above operation is incorrect, turn off the power immediately and checking any improper connections. Go through all above steps again.

Code Type	Read Enable	Checksum Verification Enable	Checksum Transmission Enable	Code ID
UPC-A	V	V	V	А
UPC-E	V	V	V	Е
	V		V	F
	V		V	FF
Code-39	V			*
Interleaved	V	V		i
2 of 5 Industrial				
2 of 5		-	-	I
Matrix 2 of 5				В
Codabar				%
Code-128	V	V		#
				&
Code-11				0
MSI/Plessey		V		@
UK/Plessey		V		@
Telepen				S
Standard 2 of 5		-	-	i
RSS-14				R4
RSS-Limited				RL
RSS-Expanded				RX
China Post				t
Italian				р
Pharmacode.				•

Default Setting for each barcode shown as below:

Posiflex CD-3830 - 1D Barcode scanner			
Specification	Model CD-3830		
Operational			
Light Source	660 nm Visible Red LED		
Optical System	2048 pixel CCD		
	(Charge-coupled device)		
Depth of Scan Field	0-250 mm		
	(CODE 39, PCS=90%, 20mils)		
Scanning Width	120 mm		
Scan Speed	200 scans/sec		
Resolution	0.1mm(4mils) Code39,PCS=90%,		
Print Contrast	30% or more		
Scanning Angle	Front: 60° Rear: 60° Yaw: 75°		
Decode Capability	Autodiscriminates all standard		
	barcodes; Other symbologies can be		
	ordered optionally		
Beeper Operation	7 tones or no beep		
Indicator	Green led		
Mechanical			
Length	182 mm		
Width-handle	26 mm		
Width-head	74 mm		
Depth-handle	51 mm		
Depth-head	35 mm		

Weight	160 g (cable not included)	
Cable – K/B wedge	Straight 2.0 m	
Cable – universal		
type	Straight 2.3 m	
Connector type	RJ-45 phone jack connector	
Case material	ABS plastic	
Cushion material	Rubber	
Electrical		
Input Voltage	5 VDC ± 0.25V	
Power – Operating	1275 mW	
Power – Standby	600 mW	
Current – Operating	255 mA @ 5 VDC	
Current – Standby	120 mA @ 5 VDC	
DC Transformers	Class 2; 5VDC @ 450 mA	
Agency listing	UL, FCC Class A	
Environmental		
Operating		
Temperature	0°C to 45°C (32°F to 113°F)	
Storage	-40°℃ to 60°℃	
	(-40°F to 140°F)	
Humidity	5% to 90% relative humidity,	
	non-condensing	
Light Level	Up to 60000 Lux	
Shock	1.5m drop onto concrete	
Contaminants	Seals to resist airborne particulate	
	contaminants	
Ventilation	None required	

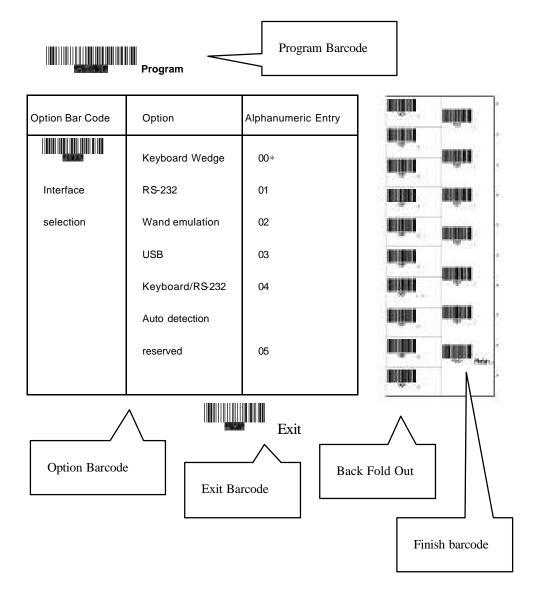
Programming	
	Manual (Reading special barcode) DOS
Programming	command through RS-232, Windows
method	configuration program
Program upgrade	Enabled by built-in flash memory
Programmable	Code type selection, check digit
characteristics	selection Decoding option Decoding
	option Transmitted character delay,
	Header selection, trailer selection,
	message suffix, good read beep tone
	and volume, scanner trigger selection
	Keyboard emulation type
	(intermessage delay, keyboard type
	and keyboard language)
	Serial interface type (ACK/NAK,
	Xon/Xoff, RTS/CTS, good read LED
	control, start/stop bits)

## **Programming the Posiflex CD-3830**

To program the CD-3830, you must scan a series of programming barcode in the correct order. Fold out the back cover of this manual. You will see a table of alphanumeric barcodes, which are used to program the various options presented.

#### To program each option, you must:

- 1. Scan the **Program barcode** on the parameter setting part.
- Enter the option mode by scanning the **Option Bar Code** (also on the Parameter setting part).
- 3. To the right of the option barcode, the necessary alphanumeric inputs are listed. Scan these alphanumeric entries from the **back fold out** page. To confirm above steps, you must scan the **Finish barcode** on the back fold out page.
- Once you have finished programming. Scan the Exit barcode, listed on the lower right hand corner of each parameter setting part.



# **Interface Selection**

This decoder build-in scanner comes in one model and supports interfaces such as keyboard wedge, RS232 serial wedge, wand emulation, and the latest USB interface. In most of the cases, simply selecting an appropriate cable with a device code will work for a specific interface.

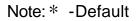
**Interface selection:** You can change factory interface default for other type interface. By plugging different cables, setting right interface, then the scanner will be changed to another interface. However, you must make sure which cable you need.

**Keyboard/RS232/UBS Auto detection:** By setting this function, it will automatically select the Keyboard wedge or RS-232 or UBS interface for user.



Program

Option Bar Code	Option	Alphanumeric
		Entry
	Keyboard Wedge	00
*1AA*	RS-232	01
Interface selection	Wand emulation	02
	USB	03
	Keyboard	
	/RS232/USB	04*
	Auto detection	
	Reserved	05





Exit

## Keyboard wedge

As a keyboard interface, the scanner supports most of the popular PCs and IBM terminals. The installation of the wedge is a fairly simple process without any changes of software or hardware.

**Keyboard Type:** Select keyboard type connector of your host computer. Scanner must be selected to the appropriate host interface cable converter.



<sup>-</sup> Program

Option Bar Code	Option	Alphanumeric
		Entry
	IBM AT, PS/2	00*
*2AA*	Reserved	01
Keyboard type	Reserved	02
	Reserved	03
	Reserved	04
	Reserved	05
	Reserved	06



Exit

## Keyboard wedge

**Keyboard Layout:** The selecting of keyboard layout supports many country languages other than USA keyboard layout. First you need to confirm country language that you desire. In DOS, using command "keyb" to select the desirable keyboard layout or in WINDOWS entry "Control" then pops "Keyboard" to select country at "language" item. For details, please refer to your DOS or WINDOWS user's manual.

**Keyboard Speed:** By selecting, you can change output speed of scanner to match with host computer. Generally, set 00 or 01 in working high speed. If some output characters of barcode have been lost, you may need to set 05 or 06 to match your host keyboard speed.

**Function Key:** Set Enable, scanner can output code as pressing function-key in your application program while the barcode data contain ASCII value between 0116 to 1F16. Refer to ASCII table, page 89.

Numeric Key: The Keypad has to be selected if your application program is only keypad numeric code acceptable. So, scanner will output code as press numeric keypad when it read numeric digit. (The keypad is in the right side of keyboard, and Num Lock control key is also on.) If Alt+Keypad is selected, Caps Lock and output will be independent.



" Program

Option Bar Code	Option	Alphanumeric
		Entry
*2AB*	USA	00*
*2AB*	Belgium	01
Keyboard layout	Danish	02
	France	03
	Germany	04
	Italian	05
	Portuguese	06
	Spanish	07
	Swedish	08
	Switzerland	09
	UK	10
	Latin American	11
	0-8	00-08
*2AC*	0 : high clock rate	01*
Keyboard speed	8 : low clock rate	
	Disable	00
*2AD*	Enable	01*
Function key		
	Alphabetic key	00*
*2AE*	Numeric keypad	01

Numeric key	(Num lock state	
	only)	
	Alt+Keypad	02

## Keyboard wedge

Exit

\*%\$\$\*

**Caps Lock:** By selecting Caps Lock or No Caps Lock, scanner can get Caps Lock status.

**Power-on simulation:** All of the PCs check the keyboard status during power-on selftest. It is recommended to Enable function if you are working without keyboard installation. It simulates keyboard timing and pass keyboard present status to the PC during power-on.

**Inter-character delay:** This delay is inserted after each data characters transmitted. If the transmission speed is too high, the system may not be able to receive all characters. Adjust it and try out suited delay to make system work properly.

**Block transmission delay:** It is a delay timer between barcode data output. The feature is used to transfer continually with shorter barcode data or multi-field scanning.



Program

	riogram	
Option Bar Code	Option	Alphanumeric
		Entry
	Caps lock"ON"	00
*2AF*	Caps lock"OFF"	01*
Caps lock		
	Disable	00*
*2AG*	Enable	01
Power-on simulation		
	00-99 msec	00-99
*2AH*		02*
Inter-character delay		
	00-99 10 msec	00-99
*2AI*		10*
Block transmission		
delay		



Exit

## **RS-232**

**CTS:** Clear To Send (Hardware Signal) **RTS:** Request To Send (Hardware Signal) Xon: Transmit On (ASCII Code 1116)Xoff: Transmit Off (ASCII Code1316)

#### Flow control:

**None-**The communication only uses TxD and RxD signals without regard for any hardware or software handshaking protocol.

**RTS/CTS-**If the scanner wants to send the barcode data to host computer, it will issue the RTS signal first, wait for the CTS signal from the host computer, and then perform the normal data communication. If there is no replied CTS signal from the host computer after the timeout (Response Delay) duration, the scanner will issue a 5 warning beeps.

**Xon/Xoff-** When the host computer is unable to accept data, it sends a Xoff code to inform the scanner to suspend data transmission, and Xon to continue.

**ACK/NAK-** When the ACK/NAK protocol is used, the scanner waits for an ACK (acknowledge) or (not acknowledge) from the host computer after data transmission, and will resend in response to a NAK.

Inter-character delay: It is delay time between data character's data output. It is also same as Inter-char. delay of keyboard wedge.

Block transmission delay: It is a delay time between barcode data output. It is also same as Block transmission delay of keyboard wedge.

**Response delay:** This delay is used for serial communication of the scanner to waiting for handshaking acknowledgment from the host computer.



Option Bar Code	Option	Alphanumeric
		Entry
	None	00*
*3AA*	RTS/CTS	01
Flow control	Xon/Xoff	02
	ACK/NAK	03
	00-99 (msec)	00-99
*3AB*		00*
Inter-character delay		
	00-99 (10 msec)	00-99
*3AC*		00*
Block transmission		
delay		
	00-99 (100 msec)	00-99
*3AD*		20*
Response delay		





Option Bar Code	Option	Alphanumeric
		Entry
*3AE*	300 BPS	00
*3AE*	600 BPS	01
Baud rate	1200 BPS	02
	2400 BPS	03
	4800 BPS	04
	9600 BPS	05*
	19200 BPS	06
	38400 BPS	07
	None	00*
*3AF*	Odd	01
Parity	Even	02
	8 bits	00*
*3AG*	7 bits	01
Data bit		
	One bit	00*
*3AH*	Two bits	01
Stop bit		



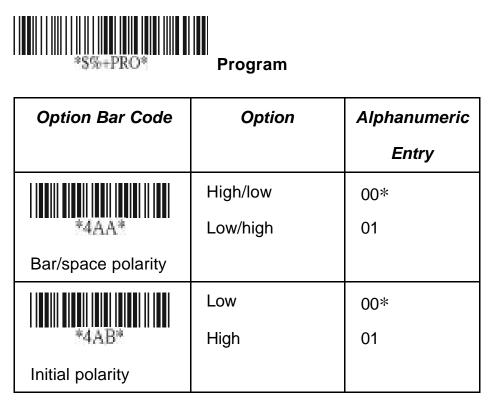
## Wand Emulation

#### Bar/space polarity:

**High/low**- Black will be transmitted as a high voltage level (+5) and space as low level (0V).

**Low/high**- Black will be transmitted as a low voltage level (0V) and space as high level (+5).

**Initial polarity:** You must make sure what is Initial polarity of your wand decode device in stand-by (idle). So, initial signal state as a High voltage level (+5) or Low voltage level (0V).





Exit

## Wand Emulation

**Output speed:** This setting is same as serial transmission baud rate, and it must be approbated your wand decode resolution. The unit of speed is a width of minimum narrow

bar.

**Margin delay:** It is a timer of zone like space zone of barcode label margin. The width of margin time will be added before and after in each barcode data automatically when it is transmitted.

**Transmit delay:** It is a delay time between barcode data output. It is the same as Block transmission delay of keyboard wedge.



Option Bar Code	Option	Alphanumeric
		Entry
	620 pps	00
*4AC*	1250 pps	01
Output speed	2500 pps	02
	5000 pps	03*
	10000 pps	04
	20000 pps	05
	*pps: pixel per	
	second	
*4AD*		00*
Reserved		
*4AE*		00*

Reserved		
	00-99 (10 pixel)	00-99
*4AF*		15*
Margin delay		
	00-99 (10 msec)	00-99
*4AG*		30*
Transmit delay		



## Scan

#### Scanning mode:

**Good-read off-**The trigger button must be pressed to activate scanning. The light source of scanner stops scanning when there is a successful reading or no code is decoded after the Stand-by duration elapsed.

**Momentary-**The trigger button acts as a switch. Press button to activate scanning and release button to stop scanning. **Alternate-**The trigger button acts as a toggle switch. Press button to activate or stop scanning.

**Timeout off-**The trigger button must be pressed to activate scanning, and scanner stops scanning when no code is decoded after the Stand-by duration elapsed.

**Continue-**The scanner always keeps reading, and it does not matter when trigger button is pressed or duration is elapsed.

Same Barcode delay time: If the barcode has been scanned twice, then only the first barcode will be accepted.

**Double confirm:** If it is enabled, the scanner will require a several times successful decoding to confirm the barcode data. The more confirming times required the more inhibitive miss-reading code will be shown. If you set Double confirm, the Multi field scan Enable function won't be able to work.



Option Bar Code	Option	Alphanumeric
		Entry
	Good-read off	00
*7AA*	Momentary	01*

Scanning mode	Alternate	02
	Timeout off	03
	Continue	04
	01-99 (second)	00-99
*7AB*		10*
Stand-by duration		
	01-99 (10 msec)	01-99
*7AC*		50*
Same barcode delay		
time		
	00-99	00-09
*7AD*	(00: no double	00*
Double confirm	confirm)	



## Scan

Multi field scan: The scanner can be read many sets of barcode data on the same scanning line at the same time, even if they are different kinds of barcode symbology. Global min./max. code length: Global Minimum and Maximum length can be set to qualify data entry. The length is defined as the actual barcode data length to be sent. Label with length exceeds these limits will be rejected. Make sure that the Minimum length setting is no greater than the Maximum length setting, or otherwise the labels of the symbology will not be readable. In particular, you can set the same value for both Minimum and Maximum reading length to force the fixed length barcode decoded. The values of setting have no effect on certain symbologies with fixed length.

- Notes 1): Please set the min/max length if you have special demand for individual barcode.
  - 2): Include the Check sum digits if you want to set Global min/max code length.

**Inverted image scan:** Set Enabled the scanner will scan both black/white barcode with white/black background.

**CTS trigger:** This operation enabled an external device to control scanning. The CTS trigger is controlled by apply an external trigger signal to the CTS input. When active, this signal causes scanning to begin as the scanner's trigger was depressed.

**Position indication:** This function can indicate the specific location before scanning. You can also set up the time of indication.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*7AE*	Enable	01
Multi field scan		
	00-63	00-63
*7AF*		04*
Global min. code length		

	00-63	04-63
*7AG*		63*
Global max.code length		
	Disable	00*
*7AH*	Enable	01
Inverted image scan		
	Disable	00*
*7AI*	Enable	01
CTS trigger		
	Disable	00*
*7AK*	30 second	01
Position indication	60 second	02
	90 second	03
	120 second	04
	150 second	05
	180 second	06
	Continue	07



# Indication

Exit

**Power on alert:** After power-on the scanner it will generate an alert signal to indicate a successful self-test.

**LED indication:** After each successful reading, the LED above the scanner will light up to indicate a good barcode reading.

**Buzzer indication:** After each successful reading, the scanner will beep buzzer to indicate a good barcode reading, and its Beep loudness, Beep tone freq. and Beep tone duration are adjustable.

Beep loudness/Beep tone freq./Beep tone duration: You

can adjust Beep Loudness, Beep tone and Beep duration for a good reading upon favorite usage.



Option Bar Code	Option	Alphanumeric
		Entry

	Disable	00
*5AA*	Enable	01*
Power on alert		
	Disable	00
*5AB*	Enable	01*
LED indication		
	Disable	00
*5AC*	Enable	01*
Buzzer indication		
	00-07	00-07
*5AD*		07*
Beep loudness		
	00-99 (100Hz)	00-99
*5AE*		26*
Beep tone freq.		
	00-99 (10 msec)	00-99
*5AF*		10*
Beep tone duration		



UPCA

Read: Format

Leading	Data Digits	Check
Zero	(11 Digits)	Digit

**Check-sum transmission:** By setting Enable, checks sum will be transmitted.

**Truncate leading/ending:** The leading or ending digits of barcode data characters can be truncated when these values are set to non-zero. It will beep instead of reading anything when the truncate value is more than the barcode data digits or the value of Truncate Leading is overlapped with that of the Ending. The maximum value of truncate digits is 15. **Code ID setting:** Code ID setting is a character used to represent the symbol upon a succeeding reading. A Code ID setting is prefixed to the data begin or end transmitted if the feature is selected. If you want application to transmit Code ID, you must set Code ID transmission to Enable first. Refer to Code ID transmission.

**Insertion group selection:** The scanner offer one or two insertion group for own symbology. By setting one or two digits to indicate which insertion group you want to insert. You may refer to Character insertion.

Example: Group 2  $\rightarrow$  set 02 or 20.

Group 1 and 4  $\rightarrow$  set 14 or 41.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00
*NAA*	Enable	01*
Read		
	Disable	00
*NAB*	Enable	01*
Check-sum verification		

	Disable	00
*NAC*	Enable	01*
Check-sum		
ransmission		
	00-64	00-64
*NAD*		64*
Max.code length		
	00-64	00-64
*NAE*		01*
Min.code length		
	0-15	00-15
*NAF*		00*
Truncate leading		
	0-15	00-15
*NAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*NAH*	code	< A >*
Code ID setting		
	00-44	00-44
*NAI*		00*
Insert group selection		



UPCA

Exit

**Supplement digits:** The Supplement digits barcode is the supplemental 2 or 5 characters for WPC code.

Format

Looding	Data Digits	Chook	Supplement Digits
	(11 Digits)		2 or 5 or
Zeiu		Digit	UCC / EAN 128

**Truncate Leading zero:** The leading "0" digits of UPCA data characters can be truncated when the function is enabled.



Program

Option Bar Code	Option	Alphanumeric
		Entry
	None	00*
*NAJ*	2 digits	01
Supplement digits	5 digits	02
	UCC/EAN 128	03
	Auto detection	04
	Disable	00
*NAK*	Enable	01*
Truncate Leading zero		



Exit

UPCE

#### Read: Format

Leading	Data Digits (6	Check
Zero	Digits)	Digits

**Check-sum verification:** The checksum of EAN-13 is optional and made as the sum of the numerical value of the data digits.

**Check-sum transmission:** By setting Enable, checks sum will be transmitted.



Program

Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00
*OAA*	Enable	01*
Read		
	Disable	00
*OAB*	Enable	01*
Check-sum		
verification		
	Disable	00
*OAC*	Enable	01*
Check-sum		
transmission		



Exit

# UPCE

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.

#### Supplement digits:

Format

Looding	Data Digits	Chook	Supplement Digits
Leading Zero	_		2 or 5 or
Zeiu	(6 Digits)	Digit	UCC/EAN 128

**Truncate Leading zero:** Refer to Truncate Leading zero of UPCA.

**Expansion:** The expansion function is used only for UPCE and EAN-8 code reading. It extends to 13-digits with "0" digits when the feature is enabled.

Example: Barcode "0123654"

Output: "0012360000057"



Option Bar Code	Option	Alphanumeric
		Entry
	0-15	00-15
*OAF*		00*
Truncate leading		

	0-15	00-15
*OAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*OAH*	code	< E >*
Code ID setting		
	00-44	00-44
*OAI*		00*
Insert group		
selection		
	None	00*
*OAJ*	2 digits	01
Supplement digits	5 digits	02
	UCC/EAN 128	03
	Auto detection	04
*0AK*	Disable	00*
*OAK*	Enable	01
Truncate Leading		
zero		
	Disable	00*
*OAL*	Enable	01
Expansion		



# **EAN-13**

Read: Format

Data Digits (12 Digits) Check Digits

**Check-sum verification:** The checksum of EAN-13 is optional and made as the sum of the numerical value of the data digits.

**Check-sum transmission:** By setting Enable, checks sum will be transmitted.

Max./Min. code length: Each symbology has own Max./Min. Code Length. They can be set to qualify data entry. If their Max./Min. Code Length is zero, the Global Min./Max. Code Length is in effect. The length is defined as to the actual barcode data length to be sent. Label with length exceeds these limits will be rejected. Make sure that the Minimum length setting is no greater than the Maximum length setting, or otherwise all the labels of the symbology will not be readable. In particular, you can see the same value for both Minimum and Maximum reading length to force the fixed length barcode decoded.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00
*GAA*	Enable	01*

Read		
	Disable	00
*GAB*	Enable	01*
Check-sum		
verification		
*GAC*	Disable	00
*GAC*	Enable	01*
Check-sum		
transmission		
	00-64	00-64
*GAD*		64*
Max.code length		
	00-64	00-64
*GAE*		01*
Min.code length		
	0-15	00-15
*GAF*		00*
Truncate leading		
	0-15	00-15
*GAG*		00*
Truncate ending		



## **EAN-13**

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.

#### Supplement digits:

Format

Data Digits (12 Digits)	Check Digits	Supplement Digits 2 or 5 or UCC / EAN 128
----------------------------	-----------------	---

**ISBN/ISSN:** The ISBN (International Standard Book Number) and ISSN (International Standard Serial Number) are two kinds of barcode for book and magazines. The ISBN is 10 digits with leading "978" and the ISSN is 8 digits with leading "977" of the "EAN-13" symbology.

Example: Barcode "9789572222720" - Output: "9572222724" Example: Barcode "9771019248004" - Output: "10192484"



Option Bar Code	Option	Alphanumeric
		Entry
	00-ffH ASCII	00-ffH
*GAH*	code	< F >*
Code ID setting		
	00-44	00-44
*GAI*		00*

conversion		
ISBN/ISSN		
*GAL*	Enable	01
	Disable	00*
	Auto detection	04
	UCC/EAN 128	03
Supplement digits	5 digits	02
*GAJ*	2 digits	01
	None	00*
selection		
Insert group		

EAN-8

Exit

Read: Format

Data Digits	Check
(7 Digits)	Digits

\*%\$\$\*

**Check-sum verification:** The checksum of EAN-8 is optional and made as the sum of the numerical value of the data digits.

**Check-sum transmission:** By setting Enable, checks sum will be transmitted.

Max./Min. code length: Refer to Max./Min. code length of EAN-13.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

**Code Id setting:** Refer to Code ID setting of UPCA **Insertion group selection:** Refer to Insertion group selection of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00
*FAA*	Enable	01*
Read		
	Disable	00
*FAB*	Enable	01*
Check-sum		
verification		
	Disable	00
*FAC*	Enable	01*
Check-sum		
transmission		
	00-64	00-64
*FAD*		64*
Max.code length		
	00-64	00-64
*FAE*		01*
Min.code length		
	0-15	00-15
*FAF*		00*
Truncate leading		

	0-15	00-15
*FAG*		00*
Truncate ending		
	Two characters	00-ffH, 00-ffH
*FAH*	00-ffH ASCII	< FF >*
Code ID setting	code	
	00-44	00-44
*FAI*		00*
Insert group		
selection		



EAN-8

Exit

Supplement digits: Format

Data Digits (7 Digits)	Check Digits	Supplement Digits 2 or 5 or UCC/EAN 128
---------------------------	-----------------	---

**Truncate Leading zero:** Refer to Truncate Leading zero of UPCE.

**Expansion:** Refer to Expansion of UPCE.



Option Bar Code	Option	Alphanumeric
		Entry
	None	00*
*FAJ*	2 digits	01

Supplement digits	5 digits	02
	UCC/EAN 128	03
	Auto detection	04
	Disable	00*
*FAK*	Enable	01
Truncate Leading		
zero		
	Disable	00*
*FAL*	Enable	01
Expansion		



#### Code 39

Read: Format

Start	Data Digits	Checksum	End
"★"	(Variable)	(Optional)	"★"

**Check-sum verification:** The checksum of Code-39 is optional and made as the sum module 43 of the numerical value of the data digits.

**Check-sum transmission:** By setting Enable, checksum will be transmitted.

*\$%+PRO* Program		
Option Bar Code	Option	Alphanumeric
		Entry

	Disable	00
*BAA*	Enable	01*
Read		
	Disable	00*
*BAB*	Enable	01
Check-sum		
verification		
	Disable	00*
*BAC*	Enable	01
Check-sum		
transmission		

#### Code 39



Exit

**Max./Min. code length:** Each symbology has own Max./Min. Code Length. They can be set to qualify data entry. If their Max./Min. Code Length is zero, the Global Min./Max. Code Length is in effect. The length is defined as to the actual barcode data length to be sent. Label with length exceeds these limits will be rejected. Make sure that the Minimum length setting is no greater than the Maximum length setting, or otherwise all the labels of the symbology will not be readable. In particular, you can see the same value for both Minimum and Maximum reading length to force the fixed length barcode decoded.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.

**Format:** The Full ASCII Code-39 is an enhanced set of Code-39 that is the data with total of 128 characters to represent Full ASCII code. It is combined one of the digits +, %, \$ and/ with one of the alpha digits (A to Z).



Option Bar Code	Option	Alphanumeric
		Entry
	00-64	00-64
*BAD*		00*
Max. code length		
	00-64	00-64
*BAE*		00*
Min. code length		
	0-15	00-15
*BAF*		00*
Truncate leading		
	0-15	00-15
*BAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*BAH*	code	<* >

Code ID setting		
	00-44	00-44
*BAI*		00*
Insert group		
selection		
	Standard	00*
*BAJ*	Full ASCII	01
Format		



#### Code 39

**Append:** This function allows several symbols to be concatenates and be treat as one single data entry. The scanner will not transmit the embedded appending code (space for Code-39). If Enable and other symbols were read again with the appended code, then codes will be transmitted without Code ID, Preamble and Prefix. When a symbol was decoded without the appended code, the data will be transmitted without Code ID and Prefix, but the Postamble Suffix codes are appended. This function is used when the first number of code 39 is a space. Example: □123456.

**Start/end transmission:** The start and end characters of Code-39 are " $\star$ ". You can transmit all data digits including two " $\star$ ".



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*BAK*	Enable	01
Append		
	Disable	00*
*BAM*	Enable	01
Start/end		
transmission		

## Interleaved 2 of 5



Exit

Read: Format

Data Digits	Checksum
(Variable)	(Optional)

**Check-sum verification:** The checksum is made as the sum module 10 of the numerical values of all data digits.

**Check-sum transmission:** By setting Enable, checksum will be transmitted.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00
*IAA*	Enable	01*

Read		
	Disable	00
*IAB*	Enable	01*
Check-sum		
verification		
	Disable	00*
*IAC*	Enable	01
Check-sum		
transmission		

### **Interleaved 2 of 5**



Exit

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry

	00-64	00-64
*IAD*		00*
Max. code leading		
	00-64	00-64
*IAB*		00*
Min. code leading		
	0-15	00-15
*IAF*		00*
Truncate leading		
	0-15	00-15
*IAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*IAH*	code	<i>*</i>
Code ID setting		
	00-44	00-44
*IAI*		00*
Insert group		
selection		



## Industrial 2 of 5

Read: Format

Data Digits	Checksum
(Variable)	(Optional)

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.



45

Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*HAA*	Enable	01
Read		
	00-64	00-64
*HAD*		00*
Max. code length		
	00-64	00-64
*HAE*		00*
Min. code length		
	0-15	00-15
*HAF*		00*
Truncate leading		
	0-15	00-15
*HAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*HAH*	code	<i>*</i>
Code ID setting		
	00-44	00-44
*HAI*		00*
Insert group		
selection		



### Matrix 2 of 5 Eur

Read: Format

Data Digits	Checksum
(Variable)	(Optional)

**Checksum Verification:** The checksum is made as the sum module 10 of the numerical values of all data digits.

**Checksum Transmission:** By setting Enable, checksum will be transmitted.

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

**Code Id setting:** Refer to Code ID setting of UPCA. **Insertion group selection:** Refer to Insertion group selection of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*PAA*	Enable	01
Read		
	Disable	00*
*PAB*	Enable	01
Checksum		
Verification		
	Disable	00*
*PAC*	Enable	01
Checksum		
Transmission		
	00-64	00-64
*PAD*		00*
Max. code length		
	00-64	00-64
*PAE*		00*
Min. code length		
	0-15	00-15
*PAF*		00*
Truncate leading		
	0-15	00-15
*PAG*		00*

Truncate ending		
	00-ffH ASCII	00-ffH
*PAH*	code	< B >*
Code ID setting		
	00-44	00- 44
*PAI*		00*
Insert group		
selection		



### Codabar

Exit

Read: Format

Start Data Dig	ts (Variable)	Checksum (Optional)	End
----------------	---------------	---------------------	-----

**Checksum Verification:** The checksum is made as the sum module 16 of the numerical values of all data digits.

**Checksum Transmission:** By setting Enable, checksum will be transmitted.

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.



49

Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*EAA*	Enable	01
Read		
	Disable	00*
*EAB*	Enable	01
Checksum		
Verification		
	Disable	00*
*EAC*	Enable	01
Checksum		
Transmission		
	00-64	00-64
*EAD*		00*
Max. code length		
	00-64	00-64
*EAE*		00*
Min. code length		
	0-15	00-15
*EAF*		00*
Truncate leading		
	0-15	00-15
*EAG*		00*

Truncate ending		
	00-ffH ASCII	00-ffH
*EAH*	code	< % >*
Code ID setting		



### Codabar

**Insertion group selection:** Refer to Insertion group selection of UPCA.

**Start/End type:** The Codabar has four pairs of Start/End pattern; you may select one pair to match your application. **Start/End Transmission:** Refer to Start/End Transmission of Code 39.



Option Bar Code	Option	Alphanumeric
		Entry
*EAI*	00-44	00-44 00*
Insert group		
selection		

	ABCD/ABCD	00*
*EAJ*	abcd/abcd	01
Start/End type	ABCD/TN*E	02
	Abcd/tn*e	03
	Disable	00*
*EAK*	Enable	01
Start/End		
transmission		

Code-128



Exit

Read: Format

Data Digits	Checksum
(Variable)	(Optional)

**Checksum Verification:** The checksum is made as the sum module 103 of all data digits.

**Checksum Transmission:** By setting Enable, checksum will be transmitted.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00
*DAA*	Enable	01*
Read		

	Disable	00
*DAB*	Enable	01*
Checksum		
Verification		
	Disable	00*
*DAC*	Enable	01
Checksum		
Transmission		



#### Code-128

Exit

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.

**Format:** The Code-128 can be translated to UCC/EAN-128 format if it starts with FNC1 character. The first FNC1 will be translated to "]C1",and next to be a field separator code as <GS>(1D16).

]C1 Data <GS> Data Checksum

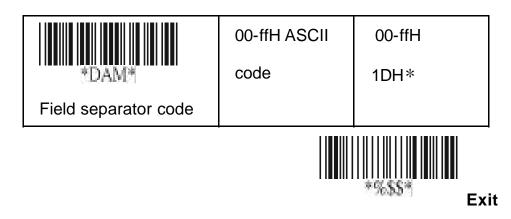
**Append:** When the function is enabled, it won't show the data immediately if scanner read the barcode includes FNC2 code. It will show all data until it read the barcode, which doesn't have FNC2 code.

**Field separator code:** This feature is only used for UCC/EAN-128 format. This Field separator code means you can reassign second or after a FNC1 for your usage. The default of ASCII code is <GS>(1D16).



Option Bar Code	Option	Alphanumeric
		Entry
	00-64	00-64
*DAD*		00*
Max. code length		
	00-64	00-64
*DAE*		00*
Min. code length		
	0-15	00-15
*DAF*		00*
Truncate leading		
	0-15	00-15
*DAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*DAH*	code	< # >*
Code ID setting		
	00-44	00-44
*DAI*		00*
Insert group selection		
	Standard	00*
*DAJ*	UCC/EAN-128	01
Format		

	Disable	00*
*DAK*	Enable	01
Append		
	00-ffH ASCII	00-ffH
*DAL*	code	< # >*
UCC/EAN-128		
ID setting		



#### Code-93

Read: Format

Data Digits	Checksum1	Checksum2
(Variable)	(Optional)	(Optional)

**Checksum Verification:** The checksum is made as the sum module 47 of the numerical values of all data digits.

**Checksum Transmission:** By setting Enable, checksum will be transmitted.

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*CAA*	Enable	01

Read		
	Disable	00
*CAB*	Enable (two	01*
Checksum	digits)	
Verification		
	Disable	00*
*CAC*	Enable	01
Checksum		
Transmission		
	00-64	00-64
*CAD*		00*
Max. code length		
	00-64	00-64
*CAE*		00*
Min. code length		
	0-15	00-15
*CAF*		00*
Truncate leading		
	0-15	00-15
*CAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*CAH*	code	< & >*
Code ID setting		

*CAI*	00-44	00-44 00*
Insert group		
selection		



#### Code-11

Read: Format

Data Digits	Checksum1	Checksum2
(Variable)	(Optional)	(Optional)

**Checksum Verification:** The checksum is presented as the sum module 11 of all data digits.

**Checksum Transmission:** By setting Enable, checksum1 and checksum2 will be transmitted upon your selected checksum verification method.

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry

	Disable	00*
*AAA*	Enable	01
Contraction and Contraction Contraction	Enable	01
Read		
	Disable	00
*AAB*	One digit	01*
Checksum	Two digits	02
Verification		
	Disable	00*
*AAC*	Enable	01
Checksum		
Transmission		
	00-64	00-64
*AAD*		00*
Max. code length		
	00-64	00-64
*AAE*		00*
Min. code length		
	0-15	00-15
*AAF*		00*
Truncate leading		
	0-15	00-15
*AAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*AAH*	code	< 0 >*

Code ID setting		
	00-44	00-44
*AAI*		00*
Insert group		
selection		



### **MSI/plessey**

Read: Format

Data Digits	Checksum1	Checksum2
(Variable)	(Optional)	(Optional)

**Checksum Verification:** The MSI/Plessey has one or two optional checksum digits. The checksum is presented 3 kinds of method Mod10, Mod10/10 and Mod 11/10. The checksum1 and checksum2 will be calculated as the sum module 10 or 11 of the data digits.

**Checksum Transmission:** By setting Enable, checksum1 and checksum2 will be transmitted upon your selected checksum verification method.

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

**Code Id setting:** Refer to Code ID setting of UPCA. **Insertion group selection:** Refer to Insertion group selection of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*KAA*	Enable	01
Read		
	Disable	00
*KAB*	Mod 10	01*
Checksum	Mod 10/10	02
Verification	Mod 11/10	03
	Disable	00*
*KAC*	Enable	01
Checksum		
Transmission		
	00-64	00-64
*KAD*		00*
Max. code length		
	00-64	00-64
*KAE*		00*
Min. code length		
	0-15	00-15
*KAF*		00*
Truncate leading		
	0-15	00-15
*KAG*		00*
Truncate ending		

	00-ffH ASCII	00-ffH
*KAH*	code	< @ >*
Code ID setting		
	00-44	00-44
*KAI*		00*
Insert group		
selection		



#### **UK/plessey**

Read: Format

Data Digits	Checksum1+2
(Variable)	(Optional)

**Checksum Verification:** The UK/Plessey has one or two optional checksum digits. The checksum1 and checksum2 will be calculated as the sum module 10 or 11 of the data digits.

**Checksum Transmission:** By setting Enable, checksum will be transmitted.

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*LAA*	Enable	01
Read		
	Disable	00
*LAB*	Enable	01*
Checksum		
Verification		
	Disable	00*
*LAC*	Enable	01
Checksum		
Transmission		
	00-64	00-64
*LAD*		00*
Max. code length		
	00-64	00-64
*LAE*		00*
Min. code length		
	0-15	00-15
*LAF*		00*
Truncate leading		
	0-15	00-15
*LAG*		00*

Truncate ending		
	00-ffH ASCII	00-ffH
*LAH*	code	< @ >*
Code ID setting		
	00-44	00-44
*LAI*		00*
Insert group		
selection		



## Telepen

Read: IATA (International Air Transport Association).

**Checksum Verification:** The checksum is presented as the sum module 10 or 11 of the data digits.

**Checksum Transmission:** By setting Enable, checksum will be transmitted.

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

**Code Id setting:** Refer to Code ID setting of UPCA. **Insertion group selection:** Refer to Insertion group selection of UPCA.



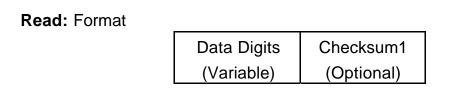
Option Bar Code	Option	Alphanumeric
-----------------	--------	--------------

		Entry
	Disable	00*
*MAA*	Enable	01
Read		
	Disable	00*
*MAB*	Enable	01
Checksum		
Verification		
	Disable	00*
*MAC*	Enable	01
Checksum		
Transmission		
	00-64	00-64
*MAD*		00*
Max. code length		
*MAE*	00-64	00-64
*MAE*		00*
Min. code length		
	0-15	00-15
*MAF*		00*
Truncate leading		
	0-15	00-15
*MAG*		00*
Truncate ending		

	00-ffH ASCII	00-ffH
*MAH*	code	< S >*
Code ID setting		
	00-44	00-44
*MAI*		00*
Insert group		
selection		
	Numeric only	00*
*MAJ*	Full ASCII only	01
Format		



#### Standard 2 of 5



Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*JAA*	Enable	01
Read		
	00-64	00-64
*JAD*		00*
Max. code length		
	00-64	00-64
*JAE*		00*
Min. code length		
	0-15	00-15
*JAF*		00*
Truncate leading		
	0-15	00-15
*JAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*JAH*	code	<i>*</i>
Code ID setting		
	00-44	00-44
*JAI*		00*
Insert group		



Read: Format

Data Digits	Checksum1
(Variable)	(Optional)

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.

UCC/EAN 128 emulation: Refer to Transmission (P89),

Code ID transmission must be set as AIM ID enable.

Then ]C1 will be identified as prefix of barcode data transmission.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*TAA*	Enable	01
Read		
	00-64	00-64
*TAD*		64*
Max. code length		

	00-64	00-64
*TAE*		01*
Min. code length		
	0-15	00-15
*TAF*		00*
Truncate leading		
	0-15	00-15
*TAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*TAH*	code	< R4 >*
Code ID setting		
	00-44	00-44
*TAI*		00*
Insert group		
selection		
	Disable	00*
*TAK*	Enable	01
UCC/EAN128		
emulation		



**RSS-Limited** 

Read: Format

Data Digits Checksum1

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.

UCC/EAN 128 emulation: Refer to UCC/EAN 128 emulation of RSS-14.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*UAA*	Enable	01
Read		
	00-64	00-64
*UAD*		64*
Max. code length		
	00-64	00-64
*UAE*		01*
Min. code length		

	0-15	00-15
*UAF*		00*
Truncate leading		
	0-15	00-15
*UAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*UAH*	code	< RL >*
Code ID setting		
	00-44	00-44
*UAI*		00*
Insert group		
selection		
	Disable	00*
*UAK*	Enable	01
UCC/EAN128		
emulation		



# **RSS-Expanded**

Read: Format

Data Digits	Checksum1
(Variable)	(Optional)

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.

UCC/EAN 128 emulation: Refer to UCC/EAN 128 emulation of RSS-14.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*VAA*	Enable	01
Read		
	00-64	00-99
*VAD*		99*
Max. code length		
	00-64	00-99
*VAE*		01*
Min. code length		

	0-15	00-15
*VAF*		00*
Truncate leading		
	0-15	00-15
*VAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*VAH*	code	< RX >*
Code ID setting		
	00-44	00-44
*VAI*		00*
Insert group		
selection		
	Disable	00*
*VAK*	Enable	01
UCC/EAN128		
emulation		



# **China Post**

Read: Format

Data Digits	Checksum1
(Variable)	(Optional)

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*SAA*	Enable	01
Read		
	00-64	00-64
*SAD*		11*
Max. code length		
	00-64	00-64
*SAE*		11*
Min. code length		
	0-15	00-15
*SAF*		00*
Truncate leading		

	0-15	00-15
*SAG*		00*
Truncate ending		
	00-ffH ASCII	00-ffH
*SAH*	code	< t >*
Code ID setting		
	00-44	01-44
*SAI*		00*
Insert group		
selection		



## **Italian Pharmacode**

Read: Format

Data Digits Checksum1

(Variable) (	(Optional)
--------------	------------

Max./Min. code length: Refer to Max./Min. code length of Code-39.

**Truncate leading/ending:** Refer to Truncate leading/ending of UPCA.

Code Id setting: Refer to Code ID setting of UPCA.

**Insertion group selection:** Refer to Insertion group selection of UPCA.

**Leading "A":** If this function is enabled, each prefix of data shall be A.



Option Bar Code	Option	Alphanumeric
		Entry
	Disable	00*
*WAA*	Enable	01
Read		
	00-64	00-64
*WAD*		10*
Max. code length		
	00-64	00-64
*WAE*		09*
Min. code length		

	0-15	00-15
*WAF*		00*
Truncate leading		
	0-15	00-15
*WAG*		00*
Truncate ending		
	00-ffH ASCII	01-ffH
*WAH*	code	*
Code ID setting		
	00-44	00-44
*WAI*		00*
Insert group		
selection		
	Disable	00*
*WAJ*	Enable	01
Leading "A"		



# **String setting**

**Prefix characters**: Up to 22 ASCII characters may be sent before data digits.

Suffix charactere. Up to 22 ASCII charactere movi ha			
Prefix	Data Digits	Suffix	

Suffix characters: Up to 22 ASCII characters may be sent

after data digits.

**Preamble/ Postamble characters:** They are appended to the data automatically when each barcode is decoded. Example:

Add a prefix/suffix or preamble/postamble for all symbologies. In this example, you are sending a \$ symbol as a prefix for all symbologies.

Steps:

1) Scan Programming and Prefix characters setting barcode.

2) Use the ASCII code table to find the value of  $\rightarrow$ 24.

3) Scan 2 and 4 from the barcode on the fold out back page.

4) Scan Finish from the barcode on the fold out page.

5) Scan Exit barcode.



Option Bar Code	Option	Alphanumeric
		Entry
	None	00*
*8AA*	1-22 characters	00-ffH ASCII
Prefix characters		code
setting		
*8AB*	None	0D*
	1-22 characters	00-ffH ASCII
Suffix characters		code
setting		
	None	00*
*8AC*	1-22 characters	00-ffH ASCII
Preamble characters		code
setting		

	None	00*
*8AD*	1-22 characters	00-ffH ASCII
Postamble		code
characters setting		
	None	00*
*8AE*	1-22 characters	00-ffH ASCII
Insert G1 characters		code
setting		
	None	00*
*8AF*	1-22 characters	00-ffH ASCII
Insert G2 characters		code
setting		
	None	00*
*8AG*	1-22 characters	00-ffH ASCII
Insert G3 characters		code
setting		
	None	00*
*8AH*	1-22 characters	00-ffH ASCII
Insert G4 characters		code
setting		

# **String setting**



**Insert G1/G2/G3/G4 character setting:** The scanner offer 4 positions and 4 characters to insert among the symbol. Example: Barcode "1 2 3 4 5 6".

Output-Barcode "1 2 A B 3 4 C D 5 6".

Steps:

1) Scan Programming and Insert G1 characters setting barcode.

2) Use the ASCII code table to find the value of A $\rightarrow$ 41,B $\rightarrow$ 42.

- 3) Scan 4, 1 and 4, 2 from the barcode on the fold out back page.
- 4) Scan Finish from the barcode on the fold out page.
- 5) Repeat the same procedure in Insert G2 characters setting.
- 6) Scan Exit barcode.
- 7) Insert data group 1-4 position. Please refer to Chapter-Transmission, page 65 and in specific barcode that you want to use.



Option Bar Code	Option	Alphanumeric
		Entry
	None	00*
*8AE*	1-22 characters	00-ffH ASCII
Insert G1 characters		code
setting		
*8AF*	None	00*
	1-22 characters	00-ffH ASCII
Insert G2 characters		code
setting		
	None	00*
*8AG*	1-22 characters	00-ffH ASCII
Insert G3 characters		code
setting		

	None	00*
*8AH*	1-22 characters	00-ffH ASCII
Insert G4 characters		code
setting		



### Transmission

**Preamble transmission**: By setting Enable, Preamble will be appended before the data transmitted.

Postamble transmission: By setting Enable, Postamble will

be appended after the data is transmitted.

**Insert data group 1-4 position:** The scanner offers 4 positions to insert among the symbol. The position default value is "00" to indicate no character insertion. Beside, make sure insertion positions are not greater than the symbols; otherwise the insertion data is not effective.

**Code ID position:** Upon your usage, the transmitting position of Code ID can be selected to place Before Code Data or After Code Data when it is transmitted.



Option Bar Code	Option	Alphanumeric	
		Entry	
	Disable	00*	
*6AA*	Enable	01	
Preamble			
transmission			
	Disable	00*	
*6AB*	Enable	01	
Postamble			
transmission			
	00-64	00-64	
*6AC*	(00: no insertion)	00*	
Insert data group 1			
position			

	00-64	00-64	
*6AD*	(00: no insertion)	00*	
Insert data group 2			
position			
	00-64	00-64	
*6AE*	(00: no insertion)	00*	
Insert data group 3			
position			
	00-64	00-64	
*6AF*	(00: no insertion)	00*	
Insert data group 4			
position			
	Before code data	00*	
*6AG*	After code data	01	
Code ID position			



# Transmission

**Code ID transmission:** If your application is needed to transmit Code ID, you must set this to Proprietary ID or AIM ID.

**Code length transmission:** A number of data digits can be transmitted before the code data when Enable is selected. The total length of the barcode is the number of barcode data except Truncate Leading/Ending Digits. And the length is a number with two digits.

**Code name transmission:** This function is to show unknown barcode symbologies that include all readable symbologies of the scanner. When Enable is selected, Code Name will be transmitted before code data, you will know what kind of barcode symbology is.

**Case conversion:** Under the barcode, you can set the alphabet in either upper case or lower case.

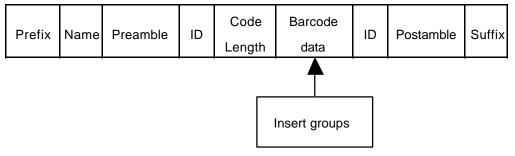


Option Bar Code	Option	Alphanumeric	
		Entry	
	Disable	00*	
*6AH*	Proprietary ID	01	
Code ID	AIM ID	02	
transmission			
*6AI*	Disable	00*	
	Enable	01	
Code length			
transmission			

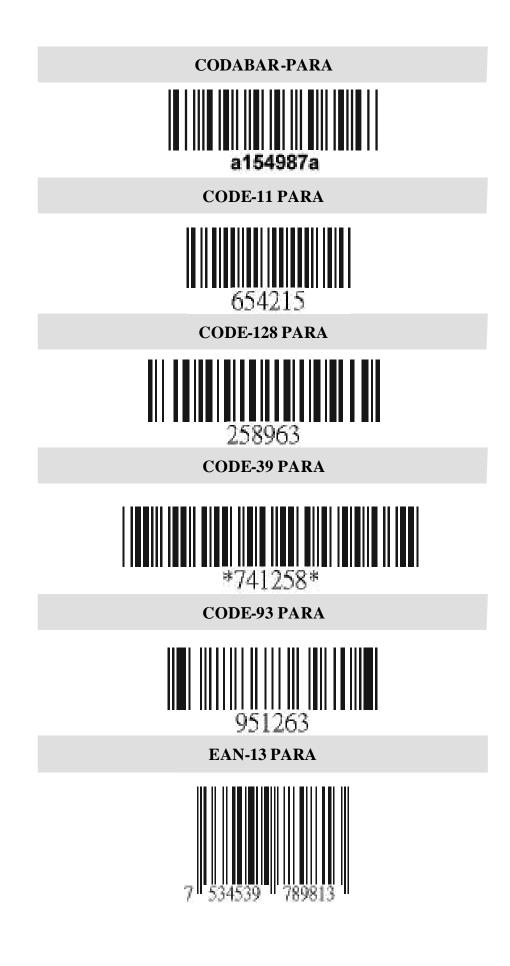
	Disable	00*
*6AJ*	Enable	01
Code name		
transmission		
*6AK*	Disable	00*
	Upper case	01
Case conversion	Lower case	02
	*For barcode	
	data only	



#### Format of barcode data transmission:



### Test Chart







ASCII Code Table Note: For keyboard wedge only.					
	0	1	0	1	
0	Nul l		NUL	DLE	
1	Up	F1	SOH	DC1	
2	Down	F2	STX	DC2	
3	Left	F3	ETX	DC3	
4	Right	F4	ЕОТ	DC4	
5	PgUp	F5	ENQ	NAK	
6	PgDn	F6	ACK	SYN	
7		F7	BEL	ETB	
8	Bs	F8	BS	CAN	
9	Tab	F9	HT	EM	
А		F10	LF	SUB	
В	Home	Esc	VT	ESC	
С	End	F11	FF	FS	
D	Enter	F12	CR	GS	
E	Insert	Ctrl+	SO	RS	
F	Delete	Alt+	SI	US	

~						
L	2	3	4	5	6	7
0	SP	0	@	Р	、	р
1	!	1	A	Q	а	q
2	**	2	В	R	b	r
3	#	3	С	S	с	s
4	\$	4	D	Т	d	t
5	%	5	E	U	е	u
6	&	6	F	V	f	v
7	ç	7	G	W	g	w
8	(	8	Н	X	h	x
9	)	9	Ι	Y	i	у
A	*	:	J	Z	j	z
В	+	;	K	[	k	{
С	,	~	L		1	
D	-	=	М	]	m	}
Е		>	N	^	n	$\sim$
F	/	?	0	-	0	DEL

# **Parameter Setting List**



Program



### Barcode standard parameter setting list

If you wish to display the current configuration of your CD-3830, scanner over the host terminal/computer, scan the Barcode standard parameter setting list bar code.



### Unique parameter list

If you wish to display the unique parameter setting list, scan the unique parameter list bar code



### System parameter setting list

If you wish to display the product information and revision number for your CD-3830 scanner over the host terminal/computer, scan the System parameter setting list bar code.



### String setting list

If you wish to display the string format list, scan the String setting list bar code.



### Firmware version list

If you wish to display the firmware version, scan the Firmware version list.



### WARNING: Default value initialization

If you wish to return the CD-3830 to all the factory default settings, scan the Default value initialization bar code.







