

POSIFLEX

CD-3870
Barcode Scanner
User's Manual

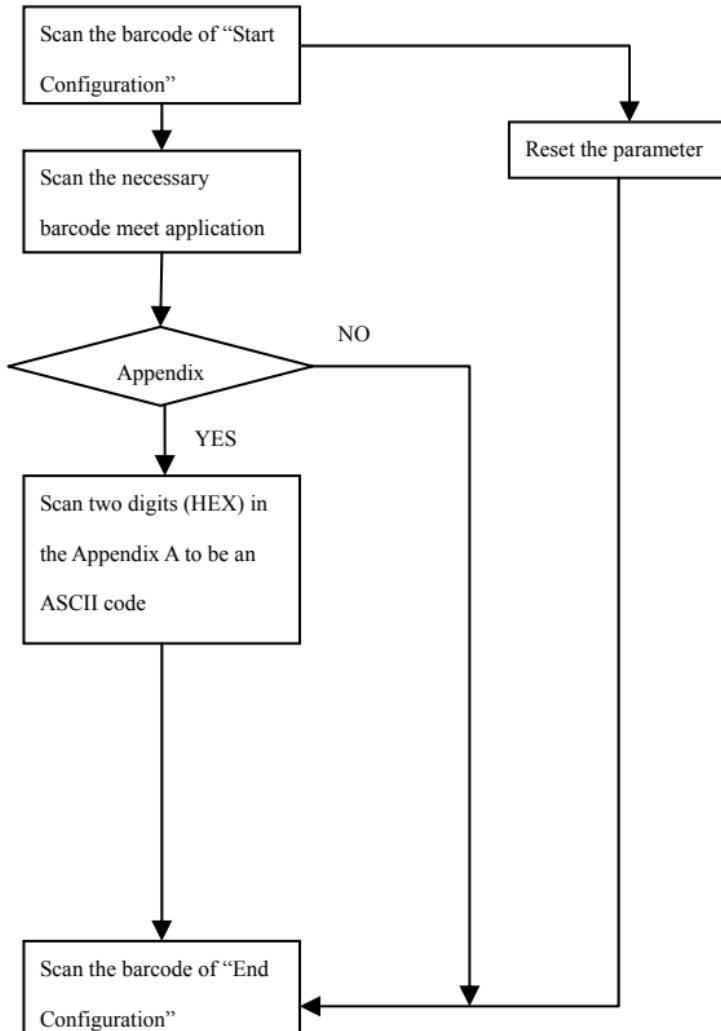
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Flow Chart of the Barcode Scanner Installation



Remark:

- Scan “Software Version” to get the software version number.
- Scan “Serial Number” to get the serial number.

1 Systems Information

1.1 Default



Start Configuration

Set All Default



((+M%4D))

1.2 Version Information

Version



((+M%4V))



End Configuration

2 Systems Setting



Start Configuration

2.1 Interfaces

Interface Selection
(Keyboard) ((A1A))
RS-232 ((A1B))
USB HID keyboard ((A1C))
USB Virtual COM ((A1D))



End configuration

2.1.1 Keyboard Wedge Setting



Start Configuration

Languages



(US) ((B2A))



Italian ((B2B))



Spanish ((B2C))



French ((B2D))



Germany ((B2E))



Japan ((B2F))



Portugal ((B2G))



Hungary ((B2H))



Swedish ((B2I))



End Configuration



Start Configuration

Languages
Norwegian ((B2J))
Denmark ((B2K))
Netherlands ((B2L))
Turkey ((B2M))
UK ((B2N))
Belgium ((B2O))
Česko((B2P))

Function Key Emulation



(OFF) ((B3A))

ON ((B3B))

Keyboard Emulation



(OFF) ((B4A))

ON ((B4B))



End Configuration



Start Configuration

ALT Mode	
(OFF) ((BCB))	ON ((BCA))
Keyboard Terminator	
None ((B9A))	
(CR) ((B9B))	
Tab ((B9C))	
ESC ((B9D))	
Caps Lock	
(OFF) ((B5A))	ON ((B5B))
Num Lock	
(OFF) ((B6A))	ON ((B6B))
Inter-Character Delay	
00H (00-64H*1 (ms)) ((B7A))	



End Configuration



Start Configuration

2.1.2 RS-232 Communication Parameters

Baud Rate



2400 ((C8B))



4800 ((C8C))



(9600) ((C8D))



19200 ((C8E))



38400 ((C8F))



57600 ((C8G))



115200 ((C8H))



End Configuration



Start Configuration

Data Bits	
7 ((C7B))	(8) ((C7A))
Data Stop	
(1) ((C6A))	2 ((C6B))
Parity	
(None) ((C5A))	Even ((C5B))
Odd ((C5C))	
Inter-Character Delay	
(00-64H*1(ms)) ((C2A))	
Handshaking	
(None) ((C1A))	RTS/CTS ((C1B))
ACK/NAK ((C1C))	Xon/Xoff ((C1D))
End Configuration	



Start Configuration

Character Parameter



None ((C9A))



(CR+LF) ((C9B))



CR ((C9C))



LF ((C9D))



Tab ((C9E))



STX/ETX ((C9F))



EOT ((C9G))



End Configuration

2.2 Scan Modes

Trigger Mode

Press the trigger and start to scan. The scan will be ended once you loose the trigger or decode the barcode. Repeat the action to start the next decodes.

Auto Power OFF Mode

Press the trigger and start to scan. The scan will be ended once the time is up or decode the barcode.

Continuous/Trigger OFF Mode

Press the trigger and start the continuous scan. In this mode, you can scan different barcode continuously and you just scan the same barcode for one time. When removing the light, you can re-scan the same barcode; when pressing the trigger again, you can end the Continued Power On Mode.

Test Mode

Press the trigger and start to test. Scan the barcode continuously and press the trigger to end the test.

Continuous/LED ON Mode

Press the trigger and start the continuous scan. The light is always on and you can press the trigger to read it. This mode will be ended when you choose the other scan mode.

Continuous/Timeout OFF Mode

The scanning method is the same as the Continuous/Trigger OFF mode but you have to scan it within the compulsory time; otherwise the mode will be ended. You can press the trigger to start the next scan.

Timeout Setup

1. Scan the “Continuous/Timeout OFF Mode” barcode.
2. Scan 2 digits of the ASCII code of the Appendix A.
3. Scan the “End” barcode of the Appendix A.
4. Scan the End Configuration to end the procedure.
5. The settings unit is a second one; for example, 0*40 stands for 1 minute.

The Timeout Default is 0*B4, about 3 minutes.



Start Configuration

Scan Mode



Trigger On/Off ((E1A))



(Trigger On/Good Read Off) ((E1B))



Continuous/Trigger Off ((E1C))



Testing ((E1D))



Continuous/LED Always On ((E1E))



Continuous/Timeout Off ((E1F))



Flash On ((E1G))



Continuous/No Trigger ((E1H))



Auto Scan ((+E1J))



End Configuration



Start Configuration

2.3 Beep Setting

Buzzer Frequency	
09H(00-10H) ((E2A))	
Buzzer Beep Tone	
(ON) ((EBA))	OFF ((EBB))
Power Up Tone	
(ON) ((ECA))	OFF ((ECB))
Good Read Beep	
(ON) ((ECA))	OFF ((ECB))



End Configuration

2.4 Character Installation

The first and last characters:

You can put 10 ASCII at most in front of the barcode data. When the installation “0”, it means that you don’t need to add the first and last characters. Please find the format as below:

The First Character	Barcode	The Last Character
---------------------	---------	--------------------

The process for adding the first and last characters to the barcode:

1. Scan the barcode of “Start Configuration” and “The First Character Installation”.
2. Check the ASCII table to get the ASCII code of the first and last characters.
3. Scan the ASCII barcode in the Appendix.
4. Scan the “End Configuration” barcode.

G1/G2 character Insertion:

You can put 10 ASCII at most in front of the barcode data. When the installation is “0”, it means that you don’t need to add the first and last characters.

1. Scan the “Start Configuration” and “G1 Insert Character” barcodes.
2. Check the ASCII table to get the ASCII code of the first and last characters.
3. Scan the ASCII barcode in the Appendix.
4. Scan the “End Configuration” barcode.
5. Repeat the same process to the G2 insertion.
6. Scan the “End Configuration” barcode.

The position of G1/G2 character insertion:

Select a character insert to the barcode. You can’t insert any character while the installation is “0”.

Scan the “Start Configuration” and “G1 character insertion position” the barcodes.

1. Check the ASCII table to get the corresponding ASCII code of the insertion position.
2. Scan the “End Configuration” barcode.

3. Repeat the same process to the G2 character insertion position.
4. Scan the “End Configuration” barcode.

Code Transmission:

If your application needs to transmit the code (barcode type ID), you have to set “ON” for this feature and the format is ID + Barcode data.



Start Configuration

Preamble Setting



(00)((E4A))

Postamble Setting



(00)((E5A))

Character Insertion



G1(00) ((E6A))

G2(00) ((E7A))

Character Insertion Position



G1(00) ((E8A))

G2(00) ((E9A))

Code ID Transmission



ON ((EAA))

(OFF) ((EAB))

2.5 Others Settings

Scanning Verification



(Single) ((EDA))

Double ((EDB))

Bar Space Setting



(Bar High) ((EEA))

Bar Low ((EEB))



End Configuration



Start Configuration

3 Code ID Setup

3.1 UPC-A

Reading	
OFF ((F1A))	(ON) ((F1B))
Code ID	
46H (20-7EH) ((F2A))	
UPC-A Convertor to EAN-13	
(OFF) ((F3A))	ON ((F3A))
Check Char. Transmission	
OFF ((F4A))	(ON) ((F4B))
Leading Zero Truncation	
(OFF)(F5A))	ON((F5B))
	End Configuration



Start Configuration

UPC-A

Leading Digit
00H (00-0DH) ((F6A))
Last Digit Truncation
00H (00-0DH) ((F7A))
Insertion Code Selection
00H (00-02H) ((F9A))
Add-on 2/5
(None) ((F8A))
2 ((F8B))
5 ((F8C))
2/5 ((F8D))
Auto ((F8E))



End Configuration



Start Configuration

3.2 UPC-E

Reading	
OFF ((G1A))	(ON) ((G1B))
Code ID	
47H (20-7EH) ((G2A))	
UPC-E Convertor to UPC-A	
(OFF) ((G3A))	ON ((G3B))
Check Char. Transmission	
OFF ((G4A))	(ON) ((G4B))
Leading Zero Truncation	
(OFF) ((G7A))	ON ((G7B))
End Configuration	



Start Configuration

UPC-E

Leading Digit Truncation



00H (00-08H) ((G5A))

Last Digit Truncation



00H (00-08H) ((G6A))

Insertion Code Selection



00H (00-02H) ((G9A))

Add-on 2/5



(None) ((G8A))

2 ((G8B))



5 ((G8C))

2/5 ((G8D))



Auto ((G8E))



End Configuration



Start Configuration

3.3 EAN-13

Reading	
OFF ((H1A))	(ON) ((H1B))
Code ID	
48H (20-7EH) ((H2A))	
Check Char. Transmission	
OFF ((H3A))	(ON) ((H3B))
Leading Digit Truncation	
00H (00-0DH) ((H4A))	
Last Digit Truncation	
00H (00-0DH) ((H5A))	
Insertion Code Selection	
00H (00-02H) ((H8A))	
	End Configuration



Start Configuration

EAN-13

Add-on 2/5



(None) ((H6A))



2 ((H6B))



5 ((H6C))



2/5 ((H6D))



Auto ((H6E))

ISBN/ISSN Conversion



(OFF) ((H7A))



ON ((H7B))



End Configuration



Start Configuration

3.4 EAN-8

Reading
Code ID
Check Char. Transmission
Leading Digit Truncation
Last Digit Truncation
Insertion Code Selection
End Configuration



Start Configuration

EAN-8

Add-on 2/5



(None) ((I6A))



2 ((I6B))



5 ((I6C))



2/5 ((I6D))



Auto ((I6E))



End Configuration



Start Configuration

3.5 Code 39

Reading	
OFF ((J1A))	(ON) ((J1B))
Code ID	
4AH (20-7EH) ((J2A))	
Checksum Verification	
(OFF) ((J3A))	ON ((J3B))
Check Char. Transmission	
OFF ((J4A))	(ON) ((J4B))
Format	
(Standard) ((J9A))	Full ASCII ((J9B))
Start/End Char. Transmission	
(OFF) ((JDA))	ON ((JDB))
	End Configuration



Start Configuration

Code 39

Min. Length	
00H (01-50H) ((J6A))	
Max. Length	
50H (01-50H) ((J7A))	
Code 39 Concatenation	
ON ((JFB))	(OFF) ((JFA))
Leading Digit Truncation	
00H (00-50H) ((JAA))	
Last Digit Truncation	
00H (00-50H) ((JBA))	
Insertion Code Selection	
00H (00-02H) ((JCA))	
End Configuration	



Start Configuration

3.6 Codabar

Reading	
OFF ((K1A))	(ON) ((K1B))
Code ID	
4BH (20-7EH) ((K2A))	
Checksum Verification	
OFF ((K3A))	(ON) ((K3B))
Check Character Transmission	
(OFF) ((K4A))	ON ((K4B))
Start/End Character Transmission	
(ABCD/ABCD) ((K8A))	abcd/abcd ((K8B))
abcd/tn*e ((K8C))	
Start/End Character Transmission	
OFF ((K9A))	(ON) ((K9B))
End Configuration	



Start Configuration

Codabar

Leading Digit Truncation



00H (01-50H) ((K6A))

Last Digit Truncation



00H (01-50H) ((K7A))

Insertion Code Selection



00H (00-02H) ((KCA))

Min. Length



06H (01-50H) ((KAA))

Max. Length



50H (01-50H) ((KBA))



End Configuration



Start Configuration

3.7 Code 93

Reading	
OFF ((L1A))	(ON) ((L1B))
Code ID	
4CH (20-7EH) ((L2A))	
Checksum Verification	
OFF ((L3A))	(ON) ((L3B))
Check Character Transmission	
(OFF) ((L4A))	ON ((L4B))
Min. Length	
03H (06-50H) ((L5A))	
Max. Length	
50H (06-50H) ((L6A))	
End Configuration	



Start Configuration

Code 93

Leading Digit Truncation



00H (00-50H) ((L7A))

Last Digit Truncation



00H (00-50H) ((L8A))

Insertion Code Selection



00H (00-02H) ((L9A))



End Configuration



Start Configuration

3.8 Code 128/EAN-128

Reading	
OFF ((M1A))	(ON) ((M1B))
Code ID	
4DH (20-7EH) ((M2A))	
Checksum Verification	
OFF ((M3A))	(ON) ((M3B))
Check Character Transmission	
(OFF) ((M4A))	ON ((M4B))
Min. Length	
03H (01-50H) ((MAA))	
Max. Length	
50H (01-50H) ((MBA))	



End Configuration



Start Configuration

Code 128

FNC2 Concatenation



(OFF) ((M5A))

ON ((M5B))

UCC/EAN128



(OFF) ((M6A))

ON ((M6B))

FNC1 Transmission



(OFF) ((M7A))

ON ((M7B))

Leading Digit Truncation



00H (00-50H) ((M8A))

Last Digit Truncation



00H (00-50H) ((M9A))

Insertion Code Selection



00H (00-02H) ((MCA))



End Configuration



Start Configuration

3.9 Interleaved 2 of 5

Reading	
Code ID	
Checksum Verification	
Check Character Transmission	
Min. Length	
Max. Length	



Start Configuration

Interleaved 2/5

Leading Digit Truncation



00H (00-50H) ((N5A))

Last Digit Truncation



00H (00-50H) ((N6A))

Insertion Code Selection



00H (00-02H) ((N9A))



End Configuration



Start Configuration

3.10 Industrial 2 of 5

Reading	
(OFF) ((O1A))	ON ((O1B))
Code ID	
4FH (20-7EH) ((O2A))	
Checksum Verification	
(OFF) ((O7A))	ON ((O7B))
Check Character Transmission	
(OFF) ((O8A))	ON ((O8B))
Min. Length	
06H (00-50H) ((O3A))	
Max. Length	
50H (00-50H) ((O4A))	
End Configuration	



Start Configuration

Industrial 2 of 5

Leading Digit
00H (00-50H) ((O5A))
Last Digit Truncation
00H (00-50H) ((O6A))
Insertion Code Selection
00H (00-02H) ((O9A))



End Configuration



Start Configuration

3.11 Matrix 2 of 5

Reading	
(OFF) ((P1A))	ON ((P1B))
Code ID	
50H (20-7EH) ((P2A))	
Checksum Verification	
(OFF) ((P3A))	ON ((P3B))
Check Character Transmission	
OFF ((P4A))	(ON) ((P4B))
Min. Length	
06H (00-50H) ((P7A))	
Max. Length	
50H (00-50H) ((P8A))	
End Configuration	



Start Configuration

Matrix 2of 5

Leading Digit
0H (00-50H) ((P5A))
Last Digit Truncation
00H (00-50H) ((P6A))
Insertion Code Selection
00H (00-02H) ((P9A))



End Configuration



Start Configuration

3.12 China Post Code

Reading	
(OFF) ((Q1A))	ON ((Q1B))
Code ID	
51H (20-7EH) ((Q2A))	
Checksum Verification	
(OFF) ((Q3A))	ON ((Q3B))
Check Character Transmission	
(OFF) ((Q4A))	ON ((Q4B))
Min. Length	
06H (00-50H) ((Q7A))	
Max. Length	
50H (00-50H) ((Q8A))	
	End Configuration



Start Configuration

China Post Code

Leading Digit Truncation



00H (00-50H) ((Q5A))

Last Digit Truncation



00H (00-50H) ((Q6A))

Insertion Code Selection



00H (00-02H) ((Q9A))



End Configuration



Start Configuration

3.13 MSI/Plessey

Reading	
(OFF) ((R1A))	ON ((R1B))
Code ID	
52H (20-7EH) ((R2A))	
Checksum Verification	
(OFF) ((R3A))	MOD 10 ((R3B))
MOD 10/10 ((R3C))	MOD 11/10 ((R3D))
Check Character Transmission	
OFF ((R4A))	(ON) ((R4B))
Min. length	
06H (00-50H) ((R7A))	
Max. Length	
50H (00-50H) ((R8A))	



End Configuration



Start Configuration

MSI/Plessey

Leading Digit Truncation



00H (00-50H) ((R5A))

Last Digit Truncation



00H (00-50H) ((R6A))

Insertion Code Selection



00H (00-02H ((R9A))



End Configuration



Start Configuration

3.14 Code 32

Reading	
(OFF) ((S1A))	ON ((S1B))
Code ID	
53H (20-7EH) ((S2A))	
Checksum Verification	
OFF ((S3A))	(ON) ((S3B))
Check Character Transmission	
OFF ((S4A))	(ON) ((S4B))
Leading Digit Truncation	
00H (00-0AH) ((S5A))	
Last Digit Truncation	
00H (00-0AH) ((S6A))	
Insertion Code Selection	
00H (00-02H) ((S7A))	
End Configuration	



Start Configuration

3.15 Code 11

Reading	
(OFF) ((T1A))	ON ((T1B))
Code ID	
54H (20-7EH) ((T2A))	
Checksum Verification	
OFF ((T3A))	(ON) ((T3B))
Check Character Transmission	
(OFF) ((T4A))	ON ((T4B))
Min Length	
06H (00-50H) ((T7A))	
Max. Length	
50H (00-50H) ((T8A))	
End Configuration	



Start Configuration

Code 11

Leading Digit Truncation



00H (00-50H) ((T5A))

Last Digit Truncation



00H (00-50H) ((T6A))

Insertion Code Selection



00H (00-02H) ((T9A))



End Configuration



Start Configuration

3.16 RSS Code (Optional)

RSS-14	
(OFF) ((U1B))	ON ((U1A))
RSS-14 Limited	
(OFF) ((U2B))	ON ((U2A))
RSS-14 Expanded	
(OFF) ((U3B))	ON ((U3A))
RSS Code to UPC/EAN	
(OFF) ((U4B))	ON ((U4A))



End Configuration

Appendix A ASCII Code



0



A



1



B



2



C



3



D



4



E



5



F



6



Y



7



N



8



9



End Configuration

ASCII table

	0	1	2	3	4	5	6	7
0	NUL	DLE	SP	0	@	P	`	p
1	SOH	DC1	!	1	A	Q	a	q
2	STX	DC2	“	2	B	R	b	r
3	ETX	DC3	#	3	C	S	c	s
4	EOT	DC4	\$	4	D	T	d	t
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB	‘	7	G	W	G	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUM	*	:	J	Z	j	z
B	VT	ESC	+	;	K	[	k	{
C	FF	FS	,	<	L	\	l	|
D	CR	GS	-	=	M	}	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	_	o	DEL

Appendix B Function Key Code

	0	1
0	NULL	
1	UP	F1
2	DOWN	F2
3	LEFT	F3
4	RIGHT	F4
5	PAGE UP	F5
6	PAGE DOWN	F6
7		F7
8	BS	F8
9	TAB	F9
A		F10
B	HOME	ESC
C	END	F11
D	ENTER	F12
E	INSERT	
F	DELETE	

Function Key Code:

Before scanning barcode, please turn on Full ASCII CODE 39.