

BAR CODE

Programming Manual

Ver 1.09

Table of Contents

Chapter 1

Bar Code Menu Setup	04
---------------------------	----

Chapter 2

System Settings	05
Output Interfaces	05
Code ID Selection	06
Buzzer Settings	06
Select Keyboard Type	07
Select KBD Wedge Character Table Type	07
Capital Lock Settings	08
Digits Transmission	08
RS232 Baud Rate	09
RS232 Parity	09
RS232 Data Bit	10
RS232 Flow Control Settings	10
RS232 ACK/NAK Transmission.....	10
RS232 Flow Control Waiting Time Settings	11
RS232 STX/ETX	11
Scan Mode	12
Read Redundancy	13
Termination Character Transmission	13
Prefix/Suffix Settings	14
Inter-Block Delay	15
Inter-Character Delay	15
Length Code	16
Enable/Disable All Readable Barcode	16
Enable/Disable All Barcodes Length	17-18
Negative Barcode Setting	18
Interleaved 25	19
Standard/Full ASCII Code 39	20
Code 128	21
EAN 128	22
Codabar	23
Italy Pharmacode (Code 32)	24
Code 93	24

China Postal Code	25
Industrial 25	26
Matrix 25	27
UPC A	28
UPC E	29
EAN 13	30
EAN 8	31
DataBar(RSS)-14	32
DataBar(RSS)-Limited	32
DataBar(RSS)-Expanded	33
APPENDIX - A	
Code ID TABLE List & Data Output Format	34
APPENDIX - B	
HEXADECIMAL LABELS	35
APPENDIX - C	
ASCII - 1	36
APPENDIX - D	
ASCII - 2	37
APPENDIX - E	
ASCII - 3	38
APPENDIX - F	
ASCII - 4	39
APPENDIX - H	
Function Code (for PC PS2 Keyboard)	40
APPENDIX - I	
KBD Wedge Character Table	41
APPENDIX - G	
RS232 Character Table	42

Bar Code Menu Setup

Example: SET HID USB Interface ◦

Step1: Start Of Configuration ◦

Step2: Device Interface ◦

Step3: USB ◦

Step4: Save ◦



Example: TO Choose BAR CODE Code128 LENGTH, e. g. (17 in Hex)

Step1: Start Of Configuration ◦

Step2: Code 128 ◦

Step3: Select Min Length ◦

Step4: 1 ◦

Step5: 7 ◦

Step6: End ◦

Step7: Save ◦



Chapter 2



-ISET.



-EXIT.

System Settings



0100



00

Restore Default Settings



01

Firmware Version

Output Interfaces



0101



00

PC AT



01

RS 232



02

Keyboard



03

HID USB



-DONE.



-ISET.



-EXIT.

Code ID Selection



0202



00

Clear All Code ID Settings



01

ID Set 1(C/A/B/I/M/N)



02

ID Set 2(E/F/FF/I/M/N)



03

ID Set 3(E/A/B/I/C/N)



04

ID Set 4(C/A/B/Z/Y/X)



05

Select AIM ID



06

Select User Defined ID

Buzzer Settings



0204



00

Buzzer Disable



01

4.3K Hz



02

2.4K Hz



03

1.5K Hz



-DONE.



-ISET.



-EXIT.

Select Keyboard Type



0102



00 Alt Key Mode



01 PCAT (US)



02 PCAT (French)



03 PCAT (German)



04 PCAT (Italy)



05 PCAT (Swiss)



06 PCAT (Japanese)



07 PCAT (UK)



08 PCAT (Spanish)

Select KBD Wedge Character Table Type



0104



00 Type 1



01 Type 2



-DONE.



-ISET.



-EXIT.

Capital Lock Settings



0106



00

Auto Detection



01

Capital Lock Off



02

Capital Lock On



03

Fixed Lower Case



04

Fixed Upper Case

Digits Transmission



0209



00

Alphanumeric Key



01

Numeric Key



-DONE.



-ISET.



-EXIT.

RS232 Baud Rate



0300



00

1200 bps



01

2400 bps



02

4800 bps



03

9600 bps



04

19200 bps



05

38400 bps



06

57600 bps



07

115200 bps

RS232 Parity



0301



00

Even



01

Odd



02

Mark



03

Space



04

No Parity



-DONE.



-ISET.



-EXIT.

RS232 Data Bit



0302



00

7 Bits



01

8 Bits

RS232 Flow Control Settings



0304



00

No Flow Control



01

Data Ready



02

Scanner Ready

Disable ACK/NAK Transmission

Enable ACK/NAK Transmission

RS232 ACK/NAK Transmission



0305



00

Disable



01

Enable



-DONE.



-ISET.



-EXIT.

RS232 Flow Control Waiting Time Settings



0306



00

1 sec



01

5 sec



02

15 sec



03

Unlimited

Disable STX/ETX:

Enable STX/ETX:

RS232 STX/ETX



0307



00

Disable



01

Enable



-DONE.



-ISET.



-EXIT.

Scan Mode



0205



00

Test



01

Alternate



02

Continuous with flashing



03

Auto Scan



04

Continuous Auto Off



05

Continuous



06

Auto Off



07

Continuous (Trigger not active)



-DONE.



-ISET.



-EXIT.

Read Redundancy



0201



00

No Redundancy



01

1 Time



02

2 Times



03

3 Times



04

4 Times



05

5 Times

Termination Character Transmission



0200



00

CR



01

CR+LF (Enter)



02

LF



03

Disable



-DONE.



-ISET.



-EXIT.

Prefix/Suffix Settings



0203



00

Enable Prefix



01

Disable Prefix



02

Enable Suffix



03

Disable Suffix



04

Prefix code (max 8 digits)



05

Clear Prefix code



06

Suffix code (max 8 digits)



07

Clear Suffix code



-DONE.



-ISET.



-EXIT.

Inter-Block Delay



0206



00

None



01

10 ms



02

50 ms



03

100 ms



04

500 ms



05

1 sec



06

3 sec



07

5 sec

Inter-Character Delay



0207



00

None



01

1 ms



02

2 ms



03

5 ms



04

10 ms



05

30 ms



06

50 ms



07

100 ms



-DONE.



-ISET.



-EXIT.

Length Code



0208



00

Disable



01

Enable

Enable/Disable All Readable Barcodes



0103



00

Enable All Readable Barcodes



01

Disable All Readable Barcodes



-DONE.



-ISET.



-EXIT.

Enable/Disable All Barcodes Length



0210



00 All Code Length Enable



01 All Code Length Disable



02 Code 39 Enable



03 Code 39 Disable



04 Codabar Enable



05 Codabar Disable



06 Interleave 25 Enable



07 Interleave 25 Disable



08 China Postal Code Enable



09 China Postal Code Disable



10 Industrial 25 Code Enable



11 Industrial 25 Code Disable



12 Matriax 25 Code Enable



13 Matriax 25 Code Disable



14 UPCA Enable



15 UPCA Disable



16 EAN13 Enable



17 EAN13 Disable



18 EAN8 Enable



19 EAN8 Disable



20 UPCE Enable



21 UPCE Disable



22 Code 128 Enable



23 Code 128 Disable



-DONE.



-ISET.



-EXIT.

Enable/Disable All Barcodes Length



0210



24 Code 93 Enable



25 Code 93 Disable



26 Full ASCII Code 39 Enable



27 Full ASCII Code 39 Disable



28 Italy Pharmacode Enable



29 Italy Pharmacode Disable



30 EAN 128 Enable



31 EAN 128 Disable



32 DataBar-14 Enable



33 Databar-14 Disable



34 DataBar-Limited Enable



35 DataBar-Limited Disable



36 DataBar-Expanded Enable



37 DataBar-Expanded Disable



38 PDF417 Enable



39 PDF417 Disable

Negative Barcode Setting



0211



00 Disable



01 Enable



-DONE.



-ISET.



-EXIT.

Interleave 25



0401



00

Disable



01

Enable



02

Checksum Verification and Transmission



03

Checksum Verification and no Transmission



04

Checksum no Verification



05

First digit ignored



06

Last digit ignored



07

No ignored



08

Min Length (01)/[10]



09

Max Length (82)/[82]



10

Set User Defined ID



11

Clear User Defined ID



-DONE.



-ISET.



-EXIT.

Standard / Full ASCII Code 39



0400



00

Disable



01

Enable



02

Full ASCII



03

Standard



04

Checksum Verification and Transmission



05

Checksum Verification and no Transmission



06

Checksum no Verification



07

Enable Start/Stop Transmission



08

Disable Start/Stop Transmission



09

Min Length (01)/**[01]**



10

Max Length (82)/**[82]**



11

Set User Defined ID



12

Clear User Defined ID



-DONE.



-ISET.



-EXIT.

Code 128



0405



00 Disable



01 **Enable**



02 Min Length (01)/**[01]**



03 Max Length (82)/**[82]**



04 Set User Defined ID



05 Clear User Defined ID



06 Disable Code128 A



07 **Enable Code128 A**



08 Disable Code128 B



09 **Enable Code128 B**



10 Disable Code128 C



11 **Enable Code128 C**



-DONE.



-ISET.



-EXIT.

EAN 128



0503



00 Disable



01 **Enable**



02 Enable AIM ID



03 **Disable AIM ID**



04 Field Separator Defined



05 Enable Field Separator



06 **Disable Field Separator**



07 Set User Defined ID



08 Clear User Defined ID



09 Disable EAN-128 A



10 **Enable EAN-128 A**



11 Disable EAN-128 B



12 **Enable EAN-128 B**



13 Disable EAN-128 C



14 **Enable EAN-128 C**



-DONE.



-ISET.



-EXIT.

Codabar



0402



00

Disable



01

Enable



02

Enable Start/Stop Transmission



03

Disable Start/Stop Transmission



04

Checksum Verification and Transmission



05

Checksum Verification and no Transmission



11

Set User Defined ID



12

Clear User Defined ID



-DONE.



-ISET.



-EXIT.

Italy Pharmacode (Code 32)



0404



00

Disable



01

Enable



02

Enable alphabet Transmission



03

Disable alphabet Transmission



04

Enable Checksum Transmission



05

Disable Checksum Transmission



06

Set User Defined ID



07

Clear User Defined ID

Code 93



0502



00

Disable



01

Enable



02

Min Length (01)/[06]



03

Max Length (82)/[82]



04

Set User Defined ID



05

Clear User Defined ID



-DONE.



-ISET.



-EXIT.

China Postal Code



0403



00

Disable



01

Enable



02

Checksum Verification and Transmission



03

Checksum Verification and no Transmission



04

Checksum no Verification



05

Min Length (01)/**[11]**



06

Max Length (82)/**[82]**



07

Set User Defined ID



08

Clear User Defined ID



-DONE.



-ISET.



-EXIT.

Industrial 25



0500



00

Disable



01

Enable



02

Checksum Verification and Transmission



03

Checksum Verification and no Transmission



04

Checksum no Verification



05

Min Length (01)/**[10]**



06

Max Length (82)/**[82]**



07

Set User Defined ID



08

Clear User Defined ID



-DONE.



-ISET.



-EXIT.

Matrix 25



0501



00

Disable



01

Enable



02

Checksum Verification and Transmission



03

Checksum Verification and no Transmission



04

Checksum no Verification



05

Min Length (01)/**[10]**



06

Max Length (82)/**[82]**



07

Set User Defined ID



08

Clear User Defined ID



-DONE.



-ISET.



-EXIT.

UPCA



0504



00

Disable



01

Enable



02

EN 1st digit Transmission



03

DS 1st digit Transmission



04

EN Checksum Transmission



05

DS Checksum Transmission



06

Enable Addon 2



07

Disable Addon 2



08

Enable Addon 5



09

Disable Addon 5



10

Enable No Addon



11

Disable No Addon



12

Enable Addon Space



13

Disable Addon Space



14

Enable Convert to EAN13



15

Disable Convert to EAN13



16

Set User Defined ID



17

Clear User Defined ID



-DONE.



-ISET.



-EXIT.

UPCE



0505



00

Disable



01

Enable



02

EN 1st digit Transmission



03

DS 1st digit Transmission



04

EN Checksum Transmission



05

DS Checksum Transmission



06

Enable Addon 2



07

Disable Addon 2



08

Enable Addon 5



09

Disable Addon 5



10

Enable No Addon



11

Disable No Addon



12

Enable Addon Space



13

Disable Addon Space



14

Enable Convert to UPCA



15

Disable Convert to UPCA



16

Enable System Number 0



17

Disable System Number 0



18

Enable System Number 1



19

Disable System Number 1



20

Set User Defined ID



21

Clear User Defined ID



-DONE.



-ISET.



-EXIT.

EAN13



0600



00 Disable



01 Enable



02 EN 1st digit Transmission



03 DS 1st digit Transmission



04 EN Checksum Transmission



05 DS Checksum Transmission



06 Enable Addon 2



07 Disable Addon 2



08 Enable Addon 5



09 Disable Addon 5



10 Enable No Addon



11 Disable No Addon



12 Enable Addon Space



13 Disable Addon Space



14 Enable ISBN Conversion



15 Disable ISBN Conversion



16 Enable ISSN Conversion



17 Disable ISSN Conversion



18 Set User Defined ID



19 Clear User Defined ID



-DONE.



-ISET.



-EXIT.

EAN8



0601



00 Disable



01 Enable



02 EN 1st digit Transmission



03 DS 1st digit Transmission



04 EN Checksum Transmission



05 DS Checksum Transmission



06 Enable Addon 2



07 Disable Addon 2



08 Enable Addon 5



09 Disable Addon 5



10 Enable No Addon



11 Disable No Addon



12 Enable Addon Space



13 Disable Addon Space



14 Set User Defined ID



15 Clear User Defined ID



-DONE.



-ISET.



-EXIT.

DataBar(RSS)-14



0602



00

Disable



01

Enable



02

Set User Defined ID



03

Clear User Defined ID



04

EN Prefix Transmission



05

DS Prefix Transmission



06

EN Checksum Transmission



07

DS Checksum Transmission

DataBar(RSS)-Limited



0603



00

Disable



01

Enable



02

Set User Defined ID



03

Clear User Defined ID



04

EN Prefix Transmission



05

DS Prefix Transmission



06

EN Checksum Transmission



07

DS Checksum Transmission



-DONE.



-ISET.



-EXIT.

DataBar(RSS)-Expanded



0604



00

Disable



01

Enable



02

Set User Defined ID



03

Clear User Defined ID



04

Min Length (01)/**[01]**



05

Max Length (74)/**[74]**



-DONE.

Appendix - A

Code ID Table List

Barcode Type	Default ID			AIM ID
Code 39	C	M	Y	]A0
Codabar	N		X	]F0
Interleave 25	I	Z		]I0
China Postal Code	D			]X0
Industrial 25	H			]S0
Matriax 25	U			]X0
UPCA	A			]E0
EAN13	A	F		]E0
EAN8	B	FF		]E4
UPCE	C	E		]E0
Code 128	K			]C0
Code 93	L			]G0
Full ASCII Code 39	O			]A0
Italy Pharmacode	P			]X0
EAN 128	W			]C1
DataBar-14	R			]e0
DataBar-Limited	S			]e0
DataBar-Expanded	T			]e0

Data Output Format

STX	Prefix Code	Code Length	Code ID	Barcode Data	Suffix Code	ETX
-----	-------------	-------------	---------	--------------	-------------	-----

Appendix - B

HEXADECIMAL LABELS



Appendix - C

ASCII - 1

 *%U* **NUL**

 *\$C* **ETX**

 *\$F* **ACK**

 *\$I* **HT**

 *\$L* **FF**

 *\$O* **SI**

 *\$R* **DC2**

 *\$U* **NAK**

 *\$X* **CAN**

 *%A* **ESC**

 *%D* **RS**

 *\$A* **SOH**

 *\$D* **EOT**

 *\$G* **BEL**

 *\$J* **LF**

 *\$M* **CR**

 *\$P* **DLE**

 *\$S* **DC3**

 *\$V* **SYN**

 *\$Y* **EM**

 *%B* **FS**

 *%E* **US**

 *\$B* **STX**

 *\$E* **ENQ**

 *\$H* **BS**

 *\$K* **VT**

 *\$N* **SO**

 *\$Q* **DC1**

 *\$T* **DC4**

































 *\$W* **ETB**

 *\$Z* **SUB**

 *%C* **GS**


Appendix - D


ASCII - 2


 ** Space	 */A* !	 */B* ,
 */C* #	 */D* \$	 */E* %
 */F* &	 */G* ,	 */H* (
 */I*)	 */J* *	 */K* +
 */L* ,	 */M* -	 */N* .
 */O* /	 */P* 0	 */Q* 1
 */R* 2	 */S* 3	 */T* 4
 */U* 5	 */V* 6	 */W* 7
 */X* 8	 */Y* 9	 */Z* :
 */%F* ;	 */%G* <	 */%H* =
 */%I* >	 */%J* ?	


Appendix - E


ASCII - 3



%V @



C C



F F



I I



L L



O O



R R



U U



X X



%K [



%N ^



A A



D D



G G



J J



M M



P P


S S


V V


Y Y


%L \


%O _


B B


E E


H H


K K


N N


Q Q


T T


W W


Z Z


%M]

Appendix - F

ASCII - 4



Appendix - H

Function Code(for PC PS2 Keyboard)



F1Z6R800 **F1**



F1Z6R801 **F2**



F1Z6R802 **F3**



F1Z6R803 **F4**



F1Z6R804 **F5**



F1Z6R805 **F6**



F1Z6R806 **F7**



F1Z6R807 **F8**



F1Z6R808 **F9**



F1Z6R809 **F10**



F1Z6R810 **F11**



F1Z6R811 **F12**



F1Z6R812 **Home**



F1Z6R813 **End**



F1Z6R814 **Right**



F1Z6R815 **Left**



F1Z6R816 **Up**



F1Z6R817 **Down**



F1Z6R818 **Page Up**



F1Z6R819 **Page Down**



F1Z6R820 **Tab**



F1Z6R821 **Back Tab**



F1Z6R822 **Esc**



F1Z6R823 **Enter**



F1Z6R824 **Back Space**



F1Z6R825 **Insert**



F1Z6R826 **Delete**



F1Z6R827 **Alt Make**



F1Z6R828 **Alt Break**



F1Z6R829 **Shift Make**



F1Z6R830 **Shift Break**



F1Z6R831 **Ctrl Make**



F1Z6R832 **Ctrl Break**

Appendix - F

KBD Wedge Character Table

	0		1		2	3	4	5	6	7	8
	Type 1	Type 2	Type 1	Type 2							
0	^@		^P	F2	SP	0	@	P	`	p	
1	^A	Ins	^Q	F3	!	1	A	Q	a	q	
2	^B	Del	^R	F4	“	2	B	R	b	r	
3	^C	Home	^S	F5	#	3	C	S	c	s	
4	^D	End	^T	F6	\$	4	D	T	d	t	
5	^E	Up	^U	F7	%	5	E	U	e	u	
6	^F	Down	^V	F8	&	6	F	V	f	v	
7	^G	Left	^W	F9	‘	7	G	W	g	w	
8	^H	BS	^X	F10	(	8	H	X	h	x	
9	^I	HT	^Y	F11	)	9	I	Y	i	y	
A	^J	LF	^Z	F12	*	:	J	Z	j	z	
B	^K	Right	^[	Esc	+	;	K	[	k	{	
C	^L	PgUp	^\	Exec	,	<	L	\	l	|	
D	^M	Enter	^]		-	=	M	]	m	}	
E	^N	PgDn	^^		.	>	N	^	n	~	
F	^O	F1	^_		/	?	O	_	o	DEL	

Appendix - I

RS232 Character 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	SUB	*	:	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