



ZBA Inc.

ZLIM-211 Programming barcode manual

V1.04



1,) Summary

The ZLIM-211 is ultra-compact size scan engine, and built in high performance CCD, The ZLIM-211 is ideal for OEM applications where space is limited for scanner integration in both portable and fixed devices, including hand held terminals, PDAs, PC and cell phone peripherals, lottery terminals, time and attendance terminals, ski-pass, automated sorting machines and more.

≡ Factory default setting

RS-232 communication	Default
Baud rate	9600
Parity	None
Data Bits	8
Stop Bit	1
RTS/CTS	off
Terminator	<CR><LF>
Decoder Selection	Default
EAN/UPC	Enable
CODE 39	Enable
Code 32	Disable
CODABAR	Enable
ITF 2 OF 5	Enable
MSI	Disable
Chinese Post code	Disable
Code 93	Enable
Code 128	Enable
EAN-128	Disable
Standard 2 of 5	Disable
Industries 2 of 5	Disable
Code 11	Disable
Beeper sound	Default
Frequency	High
Duration	50 msec.
Code Identifiers	Default
Code ID	off
Code 39 identifier code	M
ITF 2 of 5 identifier code	I

















Chinese post code identifier code	H
UPC-A identifier code	A
UPC-E identifier code	E
EAN-13 identifier code	F
EAN-8 identifier code	FF
Codabar identifier code	N
Code 128 identifier code	K
Code 93 identifier code	L
MSI identifier code	P
Industries 2 of 5 code	D
Standard 2 of 5 code	S
Code11 identifier code	O
LED/Beep transmission	Default
Led/Beep Before transmission	On

Default data transmit format

Code	Message format
EAN-13	D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13
EAN-8	D1 D2 D3 D4 D5 D6 D7 D8
UPCA	D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12
UPCE	D1 D2 D3 D4 D5 D6 D7 D8
CODE128	D1-Dx (default 3~32)
EAN128	JC1 D1-Dx (default 3~32)
CODE39	D1-Dx (default 3~32)
CODE32	D1-Dx (default 3~32)
CODABAR	D1-Dx (default 6~32)
INTERLEAVED 2/5	D1-Dx (default 6~32)
CHINESE POST CODE	D1-Dx (default 10~16)
CODE93	D1-Dx (default 3~32)
MSI	D1-Dx (default 6~32)
Code 11	D1-Dx (default 4~32)
Standard 2 of 5	D1-Dx (default 6~32)
Industries 2 of 5	D1-Dx (default 6~32)



, Parameter setting (All items mark with grey shading indicates the default value)



System Function setting		
Barcode Value	Description	Remark
..	 Start Of Configuration	
+-	 End Of Configuration	
--	 Reset (return to factory default)	
++	 Abort(exit programming mode(no update)	
%/	 Display firmware version	
GR01	 Medium beeper tone	
GR02	 Low beeper tone	
GR03	 High beeper tone	
GR05	 Speaker disable	
GR10	 Long sound duration (100msec)	
GR11	 Medium sound duration(50msec)	
GR12	 Short sound duration(20msec)	
GR13	 Very short sound duration(5 msec)	
GR14	 Long sound duration (200msec)	



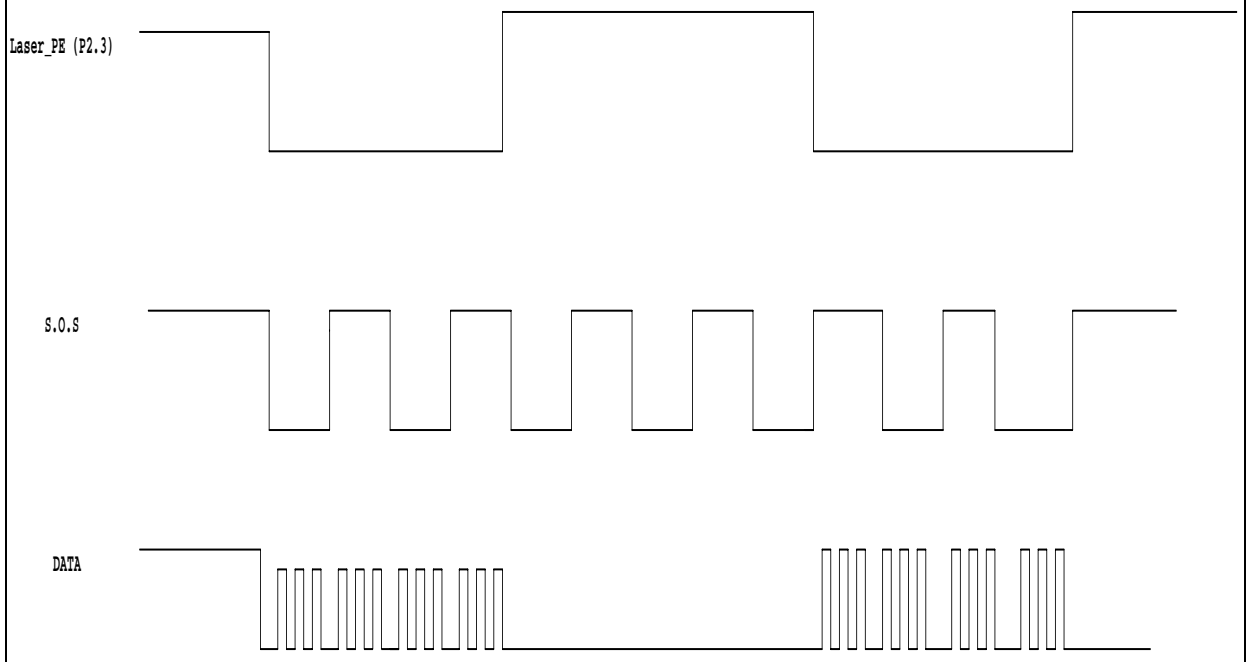
GR15		Very long sound duration (500 msec)	
GR20		LOUD VOLUME (50/50 duty)	
GR21		MEDIUM VOLUME (30/70 duty)	
GR22		Slight volume (20/80 duty)	
LB00		Led/Beep after transmission. Use this bar code to indicate a "good read" after a bar code has been successfully decoded.	
LB01		Led/Beep before transmission, Use this bar code to indicate a good read" after successfully transmitting the bar code data to the host.	
LB03		Power-up tone enable	
LB04		Power –up tone disable	

Scan function Setting		
SM01		Trigger mode, The scanner becomes inactive as soon as the data is transmitted. It must be triggered to become active again.
SM02		Autoscan mode, In auto scan mode, the



	<p>scanner is still active after the data is transmitted, but the successive transmission of the same bar code is not allowed when the trigger switch is pressed again..</p>	
<p>SM04</p> 	<p>Alternate mode. This scanner will light up when press the scanner trigger switch once. And, the scanner will turn off for next pressing</p>	

當在 Auto scan mode and Alternate mode 時如果 over laser sleep timeout 則 scanner 為 flash mode,Flash timing as following



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LS00		Laser sleep mode off, The laser timeout programming bar codes set the time for switching the laser off if the scanner isn't used.	只有效給 Auto scan mode and Alternate mode use.
LS01		Laser sleep time 5 second	
LS02		Laser sleep time 10 second	
LS03		Laser sleep time 15 second	
LS04		Laser sleep time 20 second	
LS05		Laser sleep time 30 second	
LS06		Laser sleep time 60 second	
<hr/>			
MT00		Power save mode off,	
MT01		Power save after 5 min	
MT02		Power save after 10 min	
MT03		Power save after 20 min	
MT04		Power save after 30 min	
MT05		Power save after 60 min	
MT12		Power save after every trigger scan	
<hr/>			
RS-232C Interface setting			
BR00		Baud Rate 38400	



BR01		Baud Rate 19200	
BR02		Baud Rate 9600	
BR03		Baud Rate 4800	
BR04		Baud Rate 2400	
BR05		Baud Rate 1200	
BR08		Baud Rate 57600	
BR09		Baud Rate 115200	
HP01		None handshaking	
HP02		ACK/NAK	
HP03		Xon/Xoff	
HP04		RTS/CTS	
PB01		Even parity	
PB02		Odd parity	
PB03		Mark parity	
PB04		Space parity	
PB05		None parity	
LB07		Enable BEEPER ON<BEL> CHARACTER	
LB08		Ignore BEEP ON <BEL> CHARACTER	



RT01		ACK/NAK response time 300ms	
RT02		ACK/NAK response time 2s	
RT03		ACK/NAK response time 500ms	
RT04		ACK/NAK response time 3s	
RT05		ACK/NAK response time 1s	
RT06		ACK/NAK response time 5s	
RT07		ACK/NAK response time infinity	
SB01		1 stop bit	
SB02		2 stop bit	
DB07		7 data bit	
DB08		8 data bit	
DT11		RS-232 message terminator—none	
DT12		RS-232 message terminator—CR/LF	
DT13		RS-232 message terminator—CR	
DT14		RS-232 message terminator—LF	
DT15		RS-232 message terminator—H tab	
DT16		RS-232 message terminator—STX/ETX	
DT17		RS-232 message terminator—EOT	



The Symbolologies		
CODABAR		
RC02		Codabar enable
RD02		CODABAR disable
CB05		Codabar start/stop character transmission-----none
CB06		Codabar start/stop character transmission-----A,B,C,D
CB07		Codabar start/stop character transmission-----DC1~DC4
CB08		Codabar start/stop character transmission-----a/t,b/n,c/*,d/e
CB09		Codabar maximum length setting
CB10		Codabar minimum length setting
CB11		Codabar concatenation disable
CB12		Codabar concatenation enable
CB13		No check character
CB14		Validate modulo 16,but don't transmit
CB15		Validate modulo 16,but transmit
DC50		Codabar data redundant check=off
DC51		Codabar data redundant check=1
DC52		Codabar data redundant check=2



Code39		
RC01		Code 39 enable
RD01		Code 39 disable
RC13		Code 32 enable
RD13		Code 32 disable
DC00		Code 39 data redundant check=off
DC01		Code 39 data redundant check=1
DC02		Code 39 data redundant check=2
3901		Standard code 39
3902		FULL ASCII code 39
3903		Code 39 start/stop character transmission
3904		Code 39 start/stop character without transmission
3905		Code 39 check digit calculate and transmit
3906		Code 39 check digit calculate but without transmit
3907		No check character
3908		Code 39 maximum length setting
3909		Code 39 minimum length setting
3910		Code 39 concatenation enable
3911		Code 39 concatenation disable



3912		Code 32 (Italian pharmacy)transmit "A" character	
3913		Code 32 (Italian pharmacy)without transmit "A" character	

Code 93			
RC08		Code 93 enable	
RD08		Code 93 disable	
DC30		Code 93 data redundant check=off	
DC31		Code 93 data redundant check=1	
DC32		Code 93 data redundant check=2	
9301		Code 93 maximum length setting	
9302		Code 93 minimum length setting	
9303		Code 93 check digit calculate but without transmit	
9304		Code 93 check digit not calculate and without transmit	
9305		Code 93 check digit calculate and transmit	

Code 128			
RC06		Code 128 enable	
RD06		Code 128 disable	
RC10		EAN –128 enable	
RD10		EAN-128 disable	



DC40		Code 128 data redundant check=off	
DC41		Code 128 data redundant check=1	
DC42		Code 128 data redundant check=2	
1801		Code128 FNC2 concatenation enable	
1802		Code128 FNC2 concatenation disable	
1803		No check character	
1804		Calculate but not transmitt	
1805		Calculate and transmitt	
1806		Code 128 maximum length setting	
1807		Code 128 minimum length setting	ALL

Chinese post code			
RC05		Chinese post code enable	
RD05		Chinese post code disable	
DC60		Chinese post codedata redundant check=off	
DC61		Chinese post code data redundant check=1	
DC62		Chinese post codedata redundant check=2	
SZ01		Chinese post code maximum length setting	
SZ02		Chines post code code minimum length setting	



MSI/PLESSY		
RC14	MSI enable	
RD14	MSI disable	
DC70	MSI data redundant check= off	
DC71	MSI data redundant check=1	
DC72	MSI data redundant check=2	
MS01	MSI/PLESSY maximum length setting	
MS02	MSI/PLESSY minimum length setting	
MS03	MSI/Plessy double check digit calculate but not transmit	
MS04	MSI/Plessy double check digit without calculate and transmit	
MS05	MSI/Plessy double check digit calculate but only first digit transmit	
MS06	MSI/Plessy double check digit calculate and both transmit	
MS07	MSI/Plessy single check digit calculate but without transmit	
MS08	MSI/Plessy single check digit calculate and transmit	

CODE 11		
RC07	CODE 11 enable	
RD07	CODE 11 disable	
1101	CODE 11 maximum length setting	
1102	CODE 11 minimum length setting	



1103		CODE 11 one check digit verification	
1104		Code 11 two check digit verification	
1105		Two Check for code 11 check digit if code length is greater than 10 character	
1106		Disable verification	
1107		Code 11 check digit transmitted	
1108		Code 11 check digit not transmitted	

ITF 2 of 5			
RC04		ITF 2 of 5 enable	
RD04		ITF 2 of 5 disable	
RC09		IATA code enable	
RD09		IATA disable	
DC80		ITF 25 data redundant check=off	
DC81		ITF25 data redundant check=1	
DC82		ITF25 data redundant check=2	
IT01		ITF 2 of 5 code maximum length setting	
IT02		ITF 2 of 5 code minimum length setting	
IT03		ITF 2 of 5 no check character	





















IT04		ITF 2 of 5 check digit calculate and transmit	
IT05		ITF 2 of 5 check digit calculate but without transmit	
IT06		ITF 2 of 5 one Fixed length setting	
IT07		ITF 2 of 5 two Fixed length setting	

SET		Save setting to confirm (for need to reading full ASCII Table confirm use)	
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UPC/EAN/JAN			
RC11		EAN convert to ISSN/ISBN enable	
RD11		EAN convert to ISSN.ISBN disable	
RC03		UPC/EAN/JAN enable	
RD03		UPC/EAN/JAN disable	
UE01		UPC/EAN/JAN ALL ENABLE	
UE02		EAN-8 OR EAN-13 ENABLE	
UE03		UPC-A AND EAN-13 ENABLE	
UE04		UPC-A AND UPC-E ENABLE	
UE05		UPC-A ENABEL	
UE06		UPC-E ENABLE	
UE07		EAN-13 ENABLE	



UE08 	EAN-8 ENABEL	
UE09 	UPC/EAN addendum off	
UE10 	Addon 5 only	
UE11 	Addon 2 only	
UE13 	Force UPC-E to UPC-A format enable	
UE14 	Force UPC-E to UPC-A format disable	
UE15 	Force UPC-A to EAN-13 format enable	
UE16 	Force UPC-A to EAN-13 format disable	
UE17 	Transmit UPC-A check digit enable	
UE18 	Transmit UPC-A check digit disable	
UE19 	Transmit UPC-E leading character enable	
UE20 	Transmit UPC-E leading character disable	
UE21 	Transmit UPC-E check digit enable	
UE22 	Transmit UPC-E check digit disable	
UE23 	Transmit EAN-8 check digit enable	
UE24 	Transmit EAN-8 check digit disable	
UE25 	Transmit EAN-13 check digit enable	
UE26 	Transmit EAN-13 check digit disable	













UE27	Transmit UPC-A leading character enable	
UE28	Transmit UPC-A leading character disable	
UE30	Addon format with separator	
UE31	Addon format without separator	
UE32	EAN/UPC +addon (none mandatory)	
UE44	force EAN-8 to EAN-13 format enable	
UE45	force EAN-8 to EAN-13 format disable	
UE60	EAN-13 first "0" can transmitted	
UE61	EAN-13 first:"0" can't transmitted	





Data Editing		
CI01	CODE 39 identifier code setting	
CI02	ITF 2 of 5 identifier code setting	
CI03	CHINESE POST CODE identifier code setting	
CI04	UPC-E identifier code setting	
CI05	UPC-A identifier code setting	
CI06	EAN-13 identifier code setting	
CI07	EAN-8 identifier code setting	



CI08	CODABAR identifier code setting	
CI09	CODE 128 identifier code setting	
CI10	CODE 93 identifier code setting	
CI11	MSI identifier code setting	
CI15	Industrial 2 of 5 Identifier code setting	
CI16	Code 11 Identifier code setting	
CI17	Standard 2 of 5 Identifier code setting	
CP11	Add code length as header enable(all barcode)	
CP12	Add code length as header disable (all barcode)	
HT01	Header (Preamble)	
HT02	Trailer (Postamble)	
HT03	Truncate header character	
HT04	Truncate trailer character	
IC00	Inter character delay 5ms	
IC01	Inter character delay 0ms	
IC02	Inter character delay 10ms	
IC03	Inter character delay 20ms	
IC04	Inter character delay 50ms	



IC05 	Inter character delay 2ms	
IC06 	Inter character delay 100 msec	
IC07 	Inter character delay 90 msec	
IM01 	Inter message delay 0 ms	
IM02 	Inter message delay 100 ms	
IM03 	Inter message delay 500 ms	
IM04 	Inter message delay 1000 ms	
IS00 	Disable identifier code	
IS01 	Enable identifier code table as ZEBEX standard	ALL
SET 	Save setting to confirm (for need to reading full ASCII Table confirm use)	ALL

Industrial 2 of 5		
RC21 	Industrial 2 of 5 code enable	
RD21 	Industrial 2 of 5 code disable	
D251 	Industrial 2 of 5 code maximum length setting	
D252 	Industrial 2 of 5 code minimum length setting	



Standard 2 of 5		
RC22	STD 2 of 5 code enable	
RD22	STD 2 of 5 code disable	
D051	STD 2 of 5 code maximum length setting	
D052	STD 2 of 5 code minimum length setting	































Code 39 Full ASCII Table

Code 39	ASCII	Full ASCII Code 39 value	Hex. code	Code 39	ASCII	Code 39 value	Hex-code
	NUL	%U	00		SI	\$O	0F
	SOH	\$A	01		DLE	\$P	10
	STX	\$B	02		DC1	\$Q	11
	ETX	\$C	03		DC2	\$R	12
	EOT	\$D	04		DC3	\$S	13
	ENQ	\$E	05		DC4	\$T	14
	ACK	\$F	06		NAK	\$U	15
	BEL	\$G	07		SYN	\$V	16
	BS	\$H	08		ETB	\$W	17
	HT	\$I	09		CAN	\$X	18



	LF	\$J	0A		EN	\$Y	19
	VT	\$K	0B		SUB	\$Z	1A
	FF	\$L	0C		ESC	%A	1B
	CR	\$M	0D		FS	%B	1C
	SO	\$N	0E		GS	%C	1D
	RS	%D	1E		-	-	2D
	US	%E	1F		.	.	2E
	SP	SP	20		/	/	2F
	!	/A	21		0	0	30
	"	/B	22		1	1	31
	#	/C	23		2	2	32
	\$	/D	24		3	3	33
	%	/E	25		4	4	34
	&	/F	26		5	5	35
	'	/G	27		6	6	36
	(	/H	28		7	7	37
	)	/I	29		8	8	38
	*	/J	2A		9	9	39



	+	/K	2B		:	/Z	3A
	,	/L	2C		;	%F	3B
	<	%G	3C		K	K	4B
	=	%H	3D		L	L	4C
	>	%I	3E		M	M	4D
	?	%J	3F		N	N	4E
	@	%V	40		O	O	4F
	A	A	41		P	P	50
	B	B	42		Q	Q	51
	C	C	43		R	R	52
	D	D	44		S	S	53
	E	E	45		T	T	54
	F	F	46		U	U	55
	G	G	47		V	V	56
	H	H	48		W	W	57
	I	I	49		X	X	58
	J	J	4A		Y	Y	59



	Z	Z	5A		i	+I	69
	[	%K	5B		J	+J	6A
	\	%L	5C		K	+K	6B
	]	%M	5D		L	+L	6C
	^	%N	5E		M	+M	6D
	_	%O	5F		n	+N	6E
		%W	60		O	+O	6F
	a	+A	61		P	+P	70
	b	+B	62		Q	+Q	71
	c	+C	63		R	+R	72
	d	+D	64		s	+S	73
	e	+E	65		t	+T	74
	f	+F	66		u	+U	75
	g	+G	67		v	+V	76
	h	+H	68		w	+W	77
	x	+X	78		|	%Q	7C
	y	+Y	79		}	%R	7D
	z	+Z	7A		~	%S	7E



ZBA Inc.



{

%P

7B



DEL

%T

7F
