

BS-L100 Plus User Manual



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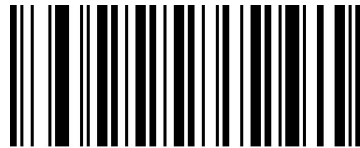
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Factory Defaults Scanning

The following barcode can restore the engine to the factory defaults.

You may need to reset your engine when:

1. engine is not properly configured so that it fails to decode barcodes
2. you forget previous configuration and want to avoid its impact
3. functions that are rarely used have been enabled for the time being.



000B0

Factory Default

Chapter 2 Scan Mode

Manual Mode

Manual Mode (default): A trigger pull activates a decode session. The decode session continues until the barcode is decoded or the trigger is released or the decode session timeout expires.



013300

Manual

Continuous Mode: A trigger press activates the engine to scan and decode at user-specified intervals, i.e. the timeout between decodes. Each decode session lasts until barcode is decoded or the decode session timeout expires. To suspend/resume the operation, simply press the trigger. By default, the engine rereads same barcode with no delay.



013304

Continuous



013302

Button Delay



013301

Single Untriggered



013303

Button Delay Untriggered







Automatic Flashing Mode:



013305

Chapter 3 Notification

Buzzer

 014201 Buzzer ON (Default)	 014200 Buzzer off	 0145800 Buzzer Frequency 2048
 014300 Buzzer High	 014301 Buzzer Low	 0145AAA Buzzer Frequency 2731

Chapter 4 Communication Settings

The scanner provides an RS-232 interface and a USB interface to communicate with the host device. The host device can receive scanned data and send commands to control the engine or to access/alter the configuration information of the engine via the RS-232 or USB interface.

RS-232 Interface

Baud Rate

When the scanner is connected to a host device through its RS-232 interface, you need to set communication parameters (including baud rate) to match the host device. Baud rate is the number of bits of data transmitted per second. Set the scanner's baud rate to match the Host requirements.

 000701 RS232 600bps	 000702 Rs232 1200bps	 000703 Rs232 2400bps
 000704 Rs232 4800bps	 000705 Rs232 9600bps Factory Fault	 000706 RS232 19200bps
 000707 Rs232 38400bps	 000708 Rs232 57600bps	 000709 Rs232 115200bps
 001200 RS232 No Parity	 001201 RS232 XON/OFF Protocol	 001202 RS232 RTS/CTS Protocol
	 0013020 RS232 Handshake Timeout 2s	 0013050 RS232 Handshake Timeout 5s

Parity Check



001000
 RS232 No Parity



001001
 RS232 Odd Parity



001002

RS232 Even Parity

Stop Bit



00090

RS232 1 stop Bit



00091

RS232 2 stop Bit

Data Bit



00080

RS232 8 Bit Data



00081

RS232 7 Bit Data

USB Interface

USB HID-KBW

When enabled, the scanner's transmission is simulated as USB keyboard input. It works on a Plug and Play basis and no driver is required.



000603

USB-HID

USB Country Keyboard Types

Keyboard layouts vary from country to country. All supported keyboard types are listed below

Keyboard Mode		
 0005000 USA, Chinese(English) Default	 0005001 Canada (French)	 0005002 Netherlands (Dutch)
 0005003 Spain-Spanish	 0005004 Argentina-Latin American	 0005005 Brazil-Portuguese
 0005006 Denmark-Danish	 0005007 UK-English	 0005008 Italy-Italian
 0005009 France-French	 0005010 Germany-German	 0005011 Norway-Northern Sami
 0005012 Sweden, Finland-Swedish, Finnish	 0005013 Slovakia-Slovak	 0005014 Portuguesea-Portuguese
 0005015 Czech Republic-Czech	 0005016 Belgium -Dutch	 0005017 Turkey-F
 0005018 Turkey-Q	 0005019 Poland-Polish	 0005020 Switzerland - German, French
 0005021	 0005022	 0005023

Croatia-Srb-Crt	Hungary -Hungarian	Japan-Japanese
 0005024 Russia-Russian	 0005025 Arab (Arab)	

USB-COM









Chapter 7 Data Formatting

Introduction

After a successful barcode read, a string containing numbers, letters or symbols will be returned. In real applications, barcode data may be found insufficient for your needs. You may wish to include additional information such as barcode type, data acquisition time or delimiter in data being scanned. Adding extra information to printed barcodes does not seem like a sensible solution since that will increase the barcode size and make them inflexible. Instead, we come up with the idea of appending prefix and suffix to the data without making any change to barcodes. We will show you how to conduct the configuration in the following sections.

Note: Customized data:< Prefix><Data><Suffix>< Terminating Character>

Prefix & Suffix Setting:

Prefix/Suffix Setting		
 0212@r CR	 0213@r\n CR+LF	 0211@[ETX] All barcodes (rear) add ETX
		

02160081 All barcodes (front) addF2	02110081 All barcodes (rear) addF2	0210@ Cancel all barcodes (rear) format character
 0217@[STX] Add STX before barcodes	 0215@ Cancel all boots before barcodes	 02240 Add prefix
 02241 Add suffix	 02242 Exit add pre/suffix Mode	 02220 Clear all prefix
 02200 Clear all suffix	 02340 Exit Hide Prefix Mode	 02341 Exit Hid Suffix Mode
 02342 Exit Hide Middle Mode	 02343 Exhit Hide Nth Mode	

Note:1, SUC/SWK/SUG all setting code are code128, when it is barcode Prefix ^3 will be set, such as ^3+*** (required code):**

2, The Ascll code of this table is decimal, and the hexadecimal system is referenced in schedule 2

Prefix & Suffix Setup Instruction

1. The prefix and suffix is divided into shared prefix-suffix and private prefix-suffix; SUCR SUC0 SUC2 SUGR could add max 32 characters; SWK could add max 16 characters.

2. Shared Prefix-suffix :

Two Methods to prefix-suffix:

[1]. To scan one code to add, setup code 0223X (Prefix), 0221X (Suffix)

0223, 0221 stand for one-time adding shared prefix-suffix X stand for added characters, X is binary, for example, to add shared prefix-suffix A, setup code is 0221A, which show all code add suffix A, to input the following content in the software:

Setup code is 0223A , which show all codes will be added prefix A;to input the following content in the software:

For example,to add shared suffix CR, setup code is 0221\r, to input the following content in the software:

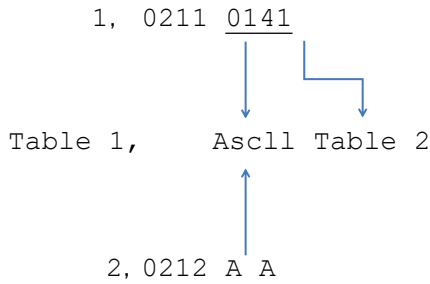
[2]: to scan one code to add,setup by Asc11, setup code is 021100nn (suffix) 、021600nn (prefix) ;Asc11 setup by Hexadecimal detailed spec pls refer to ASC11 Table 1

For Example:to add shared prefix-suffix A, By Hexadecimal, setup code is:02160041

Moreover:to add character &Enter behind code, to add"+" and Enter behind code;setup code:0213@\r; Suffix: 0212@ No cumulative ,0213@ 2 times,0211@ three times

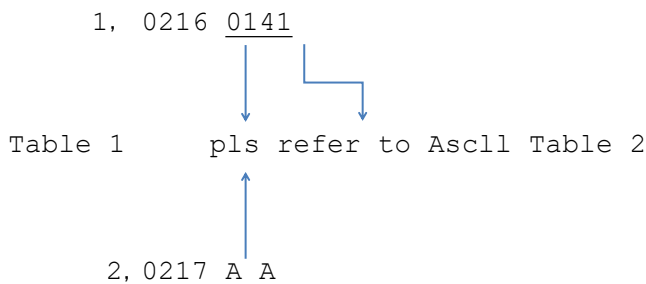
3, To add private suffix

To add private suffix, to add A behind all Code 128;Two Methods:



If accumulative, to use 0213A,0211A
Any other code,pls refer to Table 1

To add private prefix, to add A in the front of all Code 128 ;Two Methods:



If accumulative:0218A

2, Sleeping Time/ Button Delay

1, Sleeping Time Setup code:0310nn

If XS sleep, by binary system(cardinal number: 4), Formula: $x/4=NNN$

For example:Auto-power off during 60 s, setup code:0310015

Auto- power off during 5 min,setup code:031075

Sleep time Limited:42min 47s

2, Button time-out setup code:0235nn

If button overtime 4s, setup code:023540

三, For hide characters;

Hid suffix characters setup code:0233nn ,if Hide suffix 5 characters
setup code:023305

Hid prefix characters setup code:0234nn ,for 023405 hide front 5
characters.

If Hide middle characters, two setup codes are used together:0239nn(隐
Hide middle nn characters)/0240nn(from nnth on in the front), for
123456789, if we need to hide 345, setup code:023903 and 024003 used
together.

Barcode Type Table 1

@(00)all

A(01) code128

C(03) EAN8

D(04) EAN13

E(05) UPCA

F(06) UPCE

I(09) CODE93

J(0A) GS1 OMNI

K(0B) GS1 LIM1

M(0D) CODE39

N(0E)Interleaved 2 of 5

O(0F)Industrial 2 of 5

P(10)Aviation 25

- Q(11) Matrix 25
- R(12)Postal 25
- S(13) MSI
- T(14) PLESSEY
- U(15) CODE11
- V(16) CODABAR

Special Button Accordingly Code Table (Standard Characters by ASCII):

F1 = 0x80; F2 = 0x81; F3 = 0x82; F4 = 0x83; F5 = 0x84;
 F6 = 0x85; F7 = 0x86; F8 = 0x87; F9 = 0x88; F10 = 0x89;
 F11 = 0x8A; F12 = 0x8B;

Insert = 0x8C; Home = 0x8D; Page up = 0x8E;
 Delete = 0x8F; End = 0x90; Page down = 0x91;
 Right = 0x92; Left = 0x93; Down = 0x94;
 Up = 0x95;

The specified CODE93 add prefix STX, according to STX ASCII: 0x02, Setup code Contents:

Number 1:

ASCII = [F3] '0' '2' '1' '6' 'I' [STX]

Binary System = [F3] + 0x30 + 0x32 + 0x31 + 0x37 + 0x49 + 0x02



Setup code Pic

Number 2:

ASCII = [F3] + '0' + '2' + '1' + '6' + '0' + '9' + '0' + '2'

For example CODE93 add Home prefix:

ASCII = [F3] + '0' + '2' + '1' + '6' + '0' + '9' + '8' + 'D'

(Note: code93 >, home Value:0x8D)

Ascll Table 2						
Decimal	Hexadecim al	Character s		Decimal	Hexadeci mal	Characters
0	0	Space		16	10	Data link Switching
1	1	Start of		17	11	Place

		heading				Control 1
2	2	Start of Main Body		18	12	Place Control 2
3	3	End of Main Body		19	13	Place Control 3
4	4	End of Transmission		20	14	Place Control 4
5	5	Inquiry		21	15	Reconfirm
6	6	Confirmation		22	16	Synchronous idle Character
7	7	Shake the bell		23	17	End of Transmission-Block Character 2
8	8	backspace		24	18	Cancel
9	9	Horizontal TAB		25	19	End of Media
10	0A	Line feed/New Line		26	1A	Replace
11	0B	Vertical TAB		27	1B	Transference
12	0C	Skip/New Page		28	1C	File Separator
13	0D	Enter		29	1D	Group Separator
14	0E	Shift-out		30	1E	Record Separator
15	0F	Shift-in		31	1F	Unit Separator
32	20	space		80	50	P
33	21	!		81	51	Q
34	22	"		82	52	R
35	23	#		83	53	S
36	24	\$		84	54	T
37	25	%		85	55	U
38	26	&		86	56	V
39	27	'		87	57	w
40	28	(		88	58	X
41	29	)		89	59	Y

42	2A	*		90	5A	Z
43	2B	+		91	5B	[
44	2C	,		92	5C	\
45	2D	-		93	5D]
46	2E	.		94	5E	^
47	2F	/		95	5F	_
48	30	0		96	60	`
49	31	1		97	61	a
50	32	2		98	62	b
51	33	3		99	63	c
52	34	4		100	64	d
53	35	5		101	65	e
54	36	6		102	66	f
55	37	7		103	67	g
56	38	8		104	68	h
57	39	9		105	69	i
58	3A	:		106	6A	j
59	3B	;		107	6B	k
60	3C	<		108	6C	l
61	3D	=		109	6D	m
62	3E	>		110	6E	n
63	3F	?		111	6F	o
64	40	@		112	70	p
65	41	A		113	71	q
66	42	B		114	72	r
67	43	C		115	73	s
68	44	D		116	74	t
69	45	E		117	75	u
70	46	F		118	76	v
71	47	G		119	77	w
72	48	H		120	78	x
73	49	I		121	79	y
74	4A	J		122	7A	z
75	4B	K		123	7B	{
76	4C	L		124	7C	|
77	4D	M		125	7D	}
78	4E	N		126	7E	~
79	4F	O		127	7F	DEL

























Revision History :




























V2.04:[1] Fixed whether the UPCA sent a system character definition error

Define Meaning Exchange between 00401 and 00400































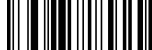
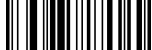

- V3.00:[1] Add Code 11 to Proof Setup
[2] Add EAN Force Exchange ISSN And ISBN
[3] Add the Proof Mode Setting
- V3.10:[1] Add《USB Software》interface Setting
- V3.11:[1] Add 《Hide Intermediate Character 》setting
[2] Add 《Display Serial Number 》Setting
[3] Add《Displays an internal Version Number
setting
- V3.12:Add the prefixes to the Setting Code
- V3.20: [1] Remove the calibration mode, calibration method into sweep
calibration
[3] Prefix character change
- V4.00:(1)Add Wireless Setting Code
(2)Add size code conversion
- V4.2:(1)Organize the collation code
(2)Increase the front and back description
(3)Infrared Increased Interfaced Mode
- V4.3:(1)the instruction of adding setting code
(2)GS1 Support Revision
(3)USB Support Medium Speed
(4)Add ASCLL Code Table 1for setup usage.
- V4.4:(1)to revise sleep time need to set up at first
- V4.5: Revising Sleep time,Remove two wireless setup mode
- V4.6:1) Disable and Enable adding setup code
2)Add Matrix 25 setup function
3)Add HID Mode
- V4.7:1)Delete useless setup code
2)Revising min digit setup code
3)Format Arrangement
- V4.8:1)Revising 014300 setup code Fixed 014300 set code graphic
2) Increase the sound frequency setting
2)To add sound frequency setup































Character for Prefix and Suffix


Character for Prefix and Suffix		
 1001 SOH	 1002 STX	 1003 ETX
 1004 EOT	 1005 ENQ	 1006 ACK
 1007 BEL	 1008 Backspace	 1009 TAB
 1010 LF	 1011 VT	 1012 FF
 1013 CR	 1014 SO	 1015 SI
 1016 DLE	 1017 DC1	 1018 DC2
 1019 DC3	 1020 DC4	 1021 NAK
 1022	 1023	 1024

SYN	ETB	CAN
 1025 EM	 1026 SUB	 1027 ESC
 1028 FS	 1029 GS	 1030 RS
 1031 US	 1032 SPACE	 1033 !
 1034 "	 1035 #	 1036 \$
 1037 %	 1038 &	 1039 \
 1040 (	1041)	 1042 *
 1043 +	 1044 ,	 1045 -
 1046 .	 1047 /	 1048 0Note:Used to set Address/prefix/suffix
 1049 1 Note:Used to set Address/prefix/suffi x	 1050 2 Note:Used to set Address/prefix/suffi x	 1051 3 Note:Used to set Address/prefix/suffix

 1052 4 Note:Used to set Address/prefix/suffi x	 1053 5 Note:Used to set Address/prefix/suffi x	 1054 6 Note:Used to set Address/prefix/suffix
 1055 7 Note:Used to set Address/prefix/suffi x	 1056 8 Note:Used to set Address/prefix/suffi x	 1057 9 Note:Used to set Address/prefix/suffix
 1058 :	 1059 ;	 1060 <
 1061 =	 1062 >	 1063 ?
 1064 @	 1065 A	 1066 B
 1067 C	 1068 D	 1069 E
 1070 F	 1071 G	 1072 H
 1073 I	 1074 J	 1075 K
 1076	 1077	 1078

 L 1079 O	 M 1080 P	 N 1081 Q
 1082 R	 1083 S	 1084 T
 1085 U	 1086 V	 1087 W
 1088 X	 1089 Y	 1090 Z
 1091 [	1092 \	 1093]
 1094 ^	 1095 _	 1096 `
 1097 a	 1098 b	 1099 c
 1100 d	 1101 e	 1102 f
 1103 g	 1104 h	 1105 i
 1106 j	 1107 k	 1108 l
 1109	 1110	 1111

1109 m	1110 n	1111 o
 1112 p	 1113 q	 1114 r
 1115 s	 1116 t	 1117 u
 1118 v	 1119 w	 1120 x
 1121 y	 1122 z	 1123 {
 1124 |	1125 }	 1126 ~
 1127 Delete	 1128 F1	 1129 F2
 1130 F3	 1131 F4	 1132 F5
 1133 F6	 1134 F7	 1135 F8
 1136 F9	 1137 F10	 1138 F11
 1139 F12	 1140 INSERT	 1141 HOME

 1142 Page up	 1143 Delete	 1144 END
 1145 Page down	 1146 Right arrow	 1147 Left arrow
 1148 Down arrow	 1149 Up arrow	

Chapter 8 Symbologies

Symbologies Selection		
 00221 Enable code39	 00220 Disable code39	 0031m code39 IDAs m
 00231 Enable code39FullASCII Default	 00230 Disable code39 Full ASCII	 00240 Disable code39 Full ASCII
 00241 Enable code39 MOD43Check	 00251 Enablecode39transmit check	 00250 Disable code39transmit check
 00280 Disable code39transimit * default	 00281 Enable code39transimit*	
		

<p>01950 Disable code32 Default</p> 	<p>01951 Enable code32 Note:will affect Code39</p> 	<p>0212M\t Code39 TAB Mode</p>
<p>01961 Hide code32 system Character</p> 	<p>01960 Transmit code32 system Character</p> 	
<p>003201 code39Minimum length 1</p> 	<p>003202 code39 Minimum length 2 Default</p> 	<p>003203 code39 Minimum length 3</p> 
<p>00341 Enable UPC-A Default</p> 	<p>00340 Disable UPC-A</p> 	<p>0049e UPC-AIDAs e</p> 
<p>00391 Enable UPCA Change to EAN13</p> 	<p>00390 Disable UPCA Change to EAN13 Default</p> 	<p>00421 Transmit UPCA Check digit Default</p> 
<p>00420 NO-Transmit UPCA Check digit</p> 	<p>00400 UPCA Display system digit</p> 	<p>00401 UPCA Hide system digit</p> 
<p>00351 Enable UPC-E Default</p> 	<p>00350 Disable UPC-E</p> 	<p>0050f UPCEID As f</p> 
		

	00381 Enable UPCE Change to UPCA	00380 Disable UPCE Change to UPCA Default
 00431 UPCE Hide System Character	 00430 UPCE Transmit System Character	 00441 UPCE Transmit Parity Bit
 00440 UPCEUPCE No transmit Parity Bit		
 00361 Enable EAN13 Factory Default	 00360 Disable EAN13	 0051d EAN13's ID d
	 00461 Transmit EAN13 Parity Bit Factory Default	 00460 No Transmit EAN13 Parity Bit
	 00481 Enable EAN13 to ISBN	 00480 Disable EAN13to ISBN Factory Default
	 01501 Enable EAN13 to ISSN	 01500 Disable EAN13 to ISSN Factory Default
	 00541 Enable EAN13 Multiple verify	 00540 Disable EAN13 Multiple verify Factory Default

 00371 Enable EAN8 Factory Default	 00370 Disable EAN8	 0052c EAN8's ID c
	 00571 EAN8 Transmit Parity Bit Factory Default	 00570 EAN8 No Transmit Parity Bit
	 00561 EAN8 Hide System Bit	 00560 EAN8 Unhide System Bit Factory Default
 00552 Enable 5 bit Extra-code	 00551 Enable 2 bit Extra-code	 00553 Enable 2 and 5 Bit Extra-code
		 00550 Disable Extra-code Factory Default
 00621 Enable code93 Factory Default	 00620 Disable code93	 0066i code93 ID i
	 00681 Enable code93 Multiple verify	 00680 Disable code93 Multiple verify Factory Default
		

	01901 Enable 93 code MOD47 Factory Default	01900 Disable 93 code MOD47
 00691 Enable code128 Factory Default	 00690 Disable code128	 0081a code128's ID a
	 00840 Disable code128 Multiple verify Factory Default	 00841 Enable code128 Multiple verify
 00851 Enable codabar Factory Default	 00850 Disable codabar	 0094v Codabar ID v
 008704 Enable Codabar min length 4	 00861 Enable codabar Initial Stop	 00860 Disable codabar Initial Stop Factory Default
 00961 Enable interleaved 2 of 5 Default	 00960 Disable interleaved 2 of 5	 0104n Interleaved 2 of 5ID As n
 009704 Interleaved 2 of 5Minimum length 4		
 00981 Enable Interleaved 2	 00980 Disable Interleaved	 00991 Interleaved 2 of 5 No

of 5 Verify	2 of 5 Verify	Transmit Verify
 00990 Interleaved 2 of 5 Transmit Veify	 01001 Enable Bank Mode	 01000 Disable Bank Mode
 01061 Enable industrial 2 of 5 Default	 01060 Disable industrial 2 of 5	 01130 Industrial 2 of 5ID As o
 010703 Industrial 2 of 5 minimum length 3		
 01151 Enable MSI	 01150 Disable MSI Default	 0053s MSI ID As s
 011804 MSI minimum length 4		
 01161 Enable Plessey Note:No Supported Wireless	 01160 Disable Plessey Note:No Supported wireless Default	 0117t PlesseyID As t Note:No Supported wireless
 011903 Plessey Minimum length 3 Note:No Supported Wireless		
 01261	 01260	 0131u

Enable code11 Default	Disable code11	code11ID As u
 012804 Code11 Minimum length 4		
 01271 Code11 Auto CK Check	 01272 Code11 C Check Default	 01273 Code11 CK Check
 01461 Enable Matrix 25 Default	 01460 Disable Matrix 25 Default	 00147q Matrix 25ID As q
	 014802 Matrix 25 Minimum length 2	 014803 Matrix 25 Minimum length 3
 01571 Enable postal 25	 01570 Disable postal 25 Default	 0158r Postal 25ID As r
	 015905 Postal 25 Minimum length 5	 015907 Postal 25 Minimum length 7
 01871 Enable aerial 25 Note:No Supported Wireless	 01870 Disable aerial 25 Default Note:No Supported Wireless	 0188p Aerial 25ID As p Note:No Supported Wireless
		

	<p>018907 Aerial 25 Minimum length 7 Note:No Supported Wireless</p>	
 <p>02371 EAN change to ISSN</p>	 <p>02370 Disable EAN change to ISSN Default</p>	
 <p>02361 EAN change to ISBN</p>	 <p>02360 Disable EAN change to ISBN Default</p>	
 <p>02581 Enable Numeric Keyboard Mode</p>	 <p>02580 Disable Numeric Keyboard Mode</p>	

