



## Counter Manual Rev 1.0

toll-free **800.814.4053**  
local **909.793.8457**  
fax **909.798.4457**

2015 West Park #3  
P.O. Box 8891  
Redlands, CA 92373

[www.matko.com](http://www.matko.com)

**matko**  
ELECTRONIC DISPLAYS

<b>⚠ CAUTION</b>	
	ALWAYS REMOVE POWER AND WAIT AT LEAST 30 SECONDS BEFORE CONNECTING OR DISCONNECTING ANY INTERNAL ELECTRONIC COMPONENTS OR INTERCONNECTING PARTS. FAILURE TO DO SO MAY RESULT IN DAMAGE TO THE UNIT OR BODILY HARM

<b>WARNING</b>	
	THIS UNIT MUST BE PROPERLY GROUNDED DO NOT REMOVE THE GROUND PRONG

<b>WARNING</b>	
	ONLY QUALIFIED PERSONELL SHOULD SERVICE AND MAINTAIN THIS EQUIPMENT.

Read this Manual before installing and operating this equipment.

Save this manual for future reference



## ***Wiring and Mounting***

### **Wiring**

#### ***Reset Button***

To reset the counter you will need to tie a momentary switch between pin 2 GND and pin 14 RED

#### ***Counter Control***

The counter signal line can be connected in 1 of 2 ways

Option 1 (triggers on a low to high transition)

Pin 1 VCC to photo transistor power

Pin 6 CL(+) to photo transistor signal line

Jumper 2 GND and 5 CL(-)

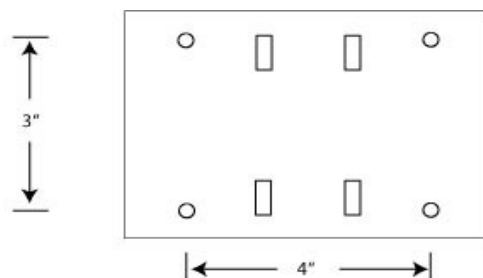
Option 2 (triggers on a high to low transition)

Pin 1 VCC to photo transistor power

Pin 3 RX 232 to photo transistor signal line

### **Mounting**

The remote display can be mounted using four 1/4" bolts or two 1/2" Wide hose clamps





## Options

To configure the options hold the LEFT button during cont down. Once in option the LEFT button increments the option number and the RIGHT button toggle the value of that option

### *Option 0            Default*

Resets all options to factory defaults.

### *Option 1            Trigger*

0 – Trigger Count on a high to low transition

1 – Trigger Count on low to high transition

\*these are reversed when wired with RS232

### *Option 2            Count Up / Count Down*

0 - Count Up

1 – Count Down

### *Option 3            Count By*

Set the number to count by 1 to 255

### *Option 4            Save Count*

0 – Count is reset when power is lost

1 – Count is restored after power is lost

### *Option 5            Future Option*

### *Option 6            Decimal Point*

0 – XXXXXX

1 – XXXXXX

2 – XXXXX.X

3 – XXXX.XX

4 – XXX.XXX

5 – XX.XXXX

6 – X.XXXXX



*Option 7            No Count Down*

- 0 – Display Counts from all 9s to all 0s on power up
- 1 – Display does not count down on power up

*Option 8            No Zero Suppression*

- 0 – Leading 0s are treated as blanks (    12)
- 1 – All leading 0s are displayed (000012)

*Option 9            Future Option*

*Option 10          Mirror*

- 0 – Counter used in direct viewing
- 1 – Counter used in a rear view mirror

*Option 11          Future Option*

*Option 12          Future Option*

*Option 13          Transmit Data*

- 0 – Count is not transmitted serially
- 1 – Count is transmitted serially

*Option 14          Transmit Baud Rate*

Set the desired baud rate to transmit the current count. Ignored when Option 13 is set to 0

*Option 15          Reset Count*

- 0 – Keep Counting when Minimum or maximum is reached
- 1 – Reset Count when Minimum or Maximum is reached

*Option 16          Minimum Count*

Set the Minimum Count Number

*Option 17          Maximum Count*

Set the Maximum Count Number



*Option 18            Future Option*

*Option 19            Future Option*

*Option 20            Version*  
Displays the software version

*Option 21            Red Light*  
0 – No Red Light option  
1 – Red Light Controlled by a switch  
2 – Red Light when under minimum Count (Option 16)  
3 – Red Light when over maximum Count (Option 17)  
4 – Red Light when within the minimum and maximum range

*Option 22            Green Light*  
0 – No Green Light option  
1 – Green Light Controlled by a switch  
2 – Green Light when under minimum Count (Option 16)  
3 – Green Light when over maximum Count (Option 17)  
4 – Green Light when within the minimum and maximum range

*Option 23            Buzzer 1*  
0 – No Buzzer  
1 – Buzzer 1 sounds when under minimum Count (Option 16)  
2 – Buzzer 1 sounds when over maximum Count (Option 17)  
3 – Buzzer 1 Sounds when out of range

*Option 24            Buzzer 2*  
0 – No Buzzer  
1 – Buzzer 2 sounds when under minimum Count (Option 16)  
2 – Buzzer 2 sounds when over maximum Count (Option 17)  
3 – Buzzer 2 Sounds when out of range

*Option 25            Future Option*



## ***Replacement Parts***

<b>Part #</b>	<b>Description</b>
LMB-Counter	Motherboard for SBLC-4 and SBLC-6 displays
L2-Main-Counter	digit board for SBLC-2 displays
L4-Main	1s, 10s, 100s digits for SBLC-4 display
L4-Slave	1000s, 10000s, 100000s digits for SBLC-4 displays
L6-Main	1s, 10s, digits for SBLC-4 displays
L6-Slave34	100s, 1000s, digits for SBLC-4 displays
L6-Slave56	10000s, 100000s, digits for SBLC-4 displays
PWR	110-220 switching power supply-PD65A

## ***Revision History***

<b>Date</b>	<b>Revision</b>	<b>Description</b>
08-28-2010	v1.0	Initial Manual Release