

# LBC

## Solar Charge Controller

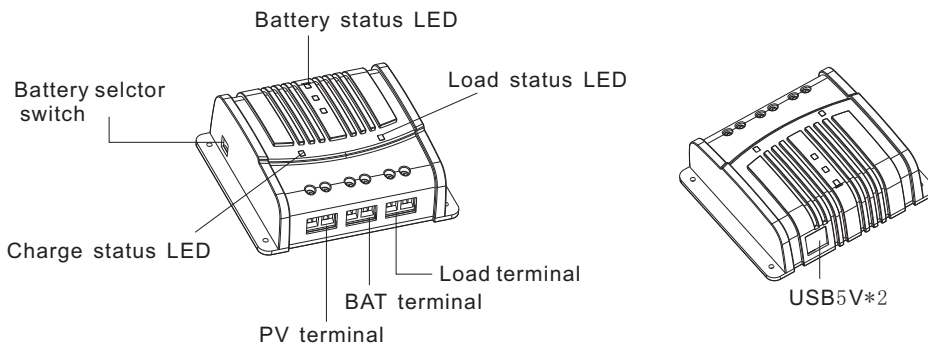
(Suitable for Sealed, GEL, Lithium battery)

# USER MANUAL

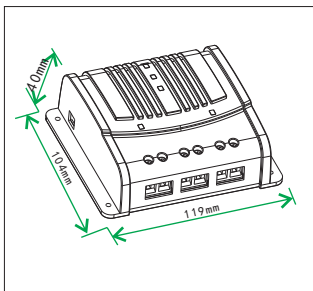
### Function

1. Automatic adaptive 12V or 24V system voltage
2. suitable for sealed, GEL, Lithium three battery
3. PWM charge technology
4. output double USB5V/500mA
5. complete electronic protection

### Part Name



### 安装方法



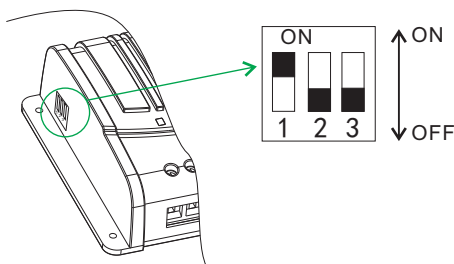
Please installed in the room, avoiding direct-clearance, do not install in the wet environment, if used outdoors, please note that waterproof moisture. Please controller and the batteries installed in the same place, the controller can be seized Measuring the battery temperature, charge voltage regulation.

#### Attention

1. Screws specifications M3 × 10 (since the attack)
2. Make sure that heat-location around other objects were not blocke

### Operation instructions

#### Battery selection



#### Battery type

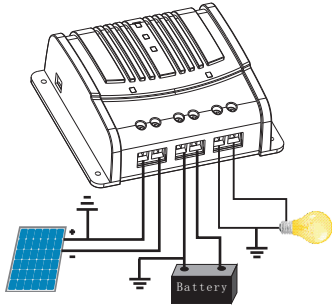
Battery type	switch1	switch2	switch3
Sealed	on (up)	off (down)	off (down)
GEL/AGM	off (down)	on (up)	off (down)
Lithium LiFePO4, 12.8V	off (down)	off (down)	on (up)

#### NOTE:

If you choose lithium battery, Please ensure that you connect the lithium battery type is LiFePO4, standard voltage is 12.8V, other types of luthium battery does not apply.  
IF you want use other types of lithium battery, please connect the supplier.



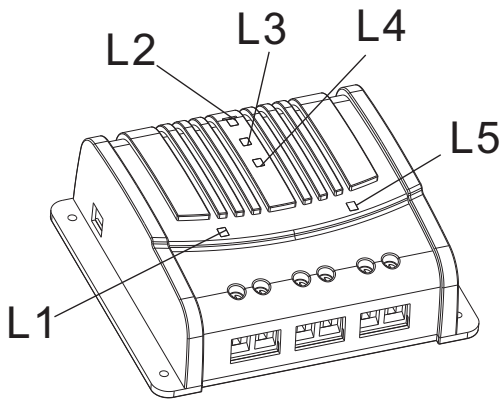
## Connecting



Be aware that the positive terminals of the LBC controller are connected internally and therefore have the same electrical potential. If any grounding is required, always do this on the positive wires.

**REMARK:** If the device is used in a vehicle which has the battery negative on the chassis, loads connected to the regulator must not have an electric connection to the car body.

## Display functions



	L2	L3	L4	
battery capacity	flash	flash	flash	battery type error
	ON	ON	ON	100%
	ON	ON	OFF	75%
	Flash	OFF	OFF	50%
	OFF	OFF	OFF	20%
L5(Red) Load status	OFF			normal working
	ON			LVD/HVD protection
	Flash			Over-load or shortcurrent
L1(Green) Charge status	OFF			no charging
	ON			Charging

## Parameter

Parameter	LBC10	LBC20	
Model	LBC10	LBC20	
Max. charge current	10A	20A	
Max. load current	10A	20A	
System voltage	12V/24VDC automatic		
Max. PV voltage	50V		
Max. battery voltage	30V		
USB output	USB5V/2A		
Battery type	sealed	GEL/AGM	Lithium(LiFePO4, 12.8V)
Float charge	13.8V	13.8V	no
Boost charge	14.4V	14.2V	14.4V
Over-voltage protection	16V	16V	16V
low-voltage protection	11V	11V	10.5V
reconnect voltage	12.6v	12.6v	12.8v
selfconsumption	<10mA		
Grounding	positive grounding		
Ambient temperature	-40~60°C		
battery type	Sealed , GEL/AGM ,lithium(LiFePO4/12.8V)		
Dimensions	119mm*104mm*40mm		
Weight	200g		
IP	IP22		

Note: 24V system : parameter value\*2