



# 50A Lite V2 and 50A Pro V2 Electric Speed Controller (ESC) Instruction



## LIABILITY DISCLAIMER

Thank you for choosing EOLO Electric Speed Controller (ESC) made by SunnySky. Please read this manual carefully before use. Once start to use this product, it is regarded all the disclaimers and warnings of this manual is fully accepted by the user. Please follow the instructions to install and operate the product. SunnySky USA LLC and Zhongshan Langyu Model Co., Ltd (SunnySky) are not liable for any damage or injury caused by misuse, improper installation, or modification of the product.



## WARNINGS

1. Abide by local laws and regulations in operation of the product. If it used in a UAV,, keep the product from crowd, power lines, and restricted areas.
2. Motors and propellers driven by this ESC are dangerous in operation. Keep a safe distance from rotation parts.
3. Ensure wires are securely soldered, no shortcut or cold soldering.

## FEATURES

50A Lite V2 and 50A Pro V2 ESCs are controlled by powerful 48MHz MCU. This product is optimized for multiple slot brushless DC motors, designed especially for multirotor UAV motors. The Active Switch Continued Flow technology is used for this ESC to achieve high efficiency, and helps to alleviate heating issue in the common ESCs. The product supports up to 500Hz throttle signal, compatible with various flight controls (Note that throttle signals higher than 500Hz are not standard). This ESC also support high voltage LiPo battery of single cell voltage up to 4.35V. The aluminum case with large heat sink dissipates heat fast to guaranty stable and long time operation without the need of fan. The 50A Pro V2 version is all sealed and is rated IP67 to be dust and water resistant, to meet the high standard requirements of professional UAVs.

**Active Protections:** startup protection, overload protecton, signal loss protection

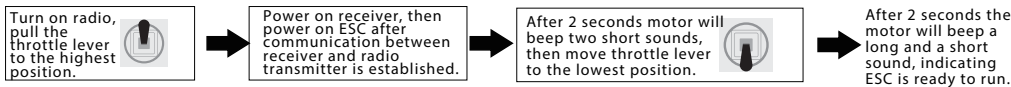
Protections	Trigger Condition	ESC Response	Removal Method
Startup	Open throttle, cannot start motor in 3 seconds	Cut off power output	Pull throttle lever to the lowest position then restart.
overload	Motor rotation blocked, very high load	Cut off power output	Pull throttle lever to the lowest position then restart.
signal loss	After lose throttle signal more than 0.32 seconds	Cut off power output	Resume output automatically after signal recovered.

## OPERATION AND CALIBRATION

### 1. Normal operation



### 2. Throttle travel calibration

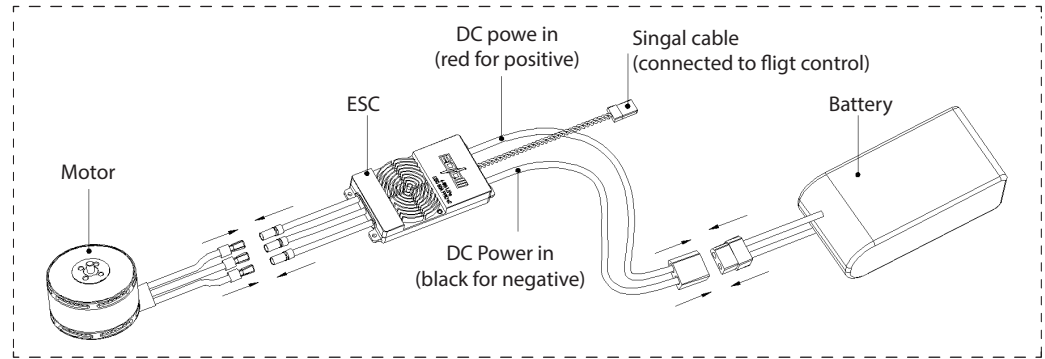


**NOTE:** it is required to calibrate throttle travel for the first time use or after a new remote control radio is used.

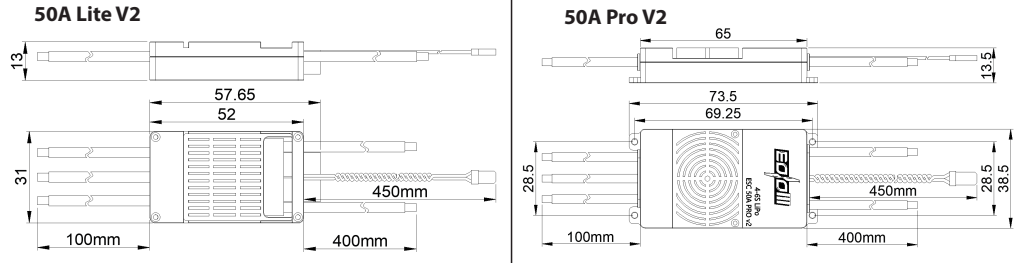
## TROUBLE SHOOTING AND BEEP SOUNDS

Problem	Beeps	Possible reasons	Solutions
<b>Cannot start</b>	Short continuous beeps	Throttle lever was not in the lowest position, or the lever travel is too short	Move throttle lever to the lowest position, or reset throttle lever travel
<b>up after</b>	One beep every second	No throttle signal from radio receiver	Check if radio transmitter is bond to reciever, or if cables are securely connected
<b>power on</b>	In a continous pattern of 2 short beeps, then followed by 3 short beeps	Reversed throttle lever setting	Follow the manual of radio controller to set throttle in correct direciton

## CONNECTION DIAGRAM



## DIMMENSIONS



## SPECIFICATIONS

Model	50A Lite V2	50A Pro V2	Unit
<b>Max. input Voltage</b>	25.2	25.2	V
<b>Max continuous current</b>	50	50	A
<b>Max peak current (10S)</b>	80	80	A
<b>Highest signal frequency</b>	500	500	Hz
<b>Default output PWM frequency</b>	16	16	KHz
<b>BEC</b>	N. A.	N. A.	-
<b>Weight (include wires)</b>	~ 63	~ 85	g
<b>Supported LiPo batteries</b>	4S - 6S LiPo		
<b>Environment temperature</b>	-20 to 40°C		

### 50A Lite V2 50A Pro V2 Compatibility

These ESCs are compatible with the following SunnySky motors and more.  
3506, 3508, 3510, 3708, 3712, 3515, 3520, 4004, 4006, 4008, 4010, 4012, 4014, 4110, 4112, 4115, 4510, 4806, 4808, 4810, 5008, 5010, 5208, 5210, 5212, 5310, 5312, 6008, 6010, 6210, 7204, 7205, 7206, 7208, 8108, 8110, 8114

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