

External 12V BMS Box Manual

(Wakes up the Lithium battery from sleep mode)

Simple diagram :



Wire Connection:

1. Before connecting the external BMS box on the battery, first connect the APP to activate the battery.
2. Connect the black wire from the external BMS box to the negative pole of the battery, and connect the red wire of the BMS box to the positive pole of the battery.

Working Conditions:

1. The voltage value range that triggers the low-voltage alarm system on RV: 9V-11.9V.
2. When the battery enters the sleep state, the voltage of the battery will be drop down about 500-600mV.
3. Connect the external BMS box to battery, the voltage will also drop down about 100-200mV.
4. When the battery enter sleep mode, the detect voltage of it $> 12.2V$, this voltage will not trigger the low-voltage alarm on RV. In this state, the external BMS box will not start any activation actions.
5. The voltage of battery in sleep state from 11V-12.2V, the external BMS box triggers the activation action within 2sec.
6. If the battery voltage is $< 11V$, the external BMS box will not work to avoid consuming battery power.

Power Consumption:

1. Self-consumption of normal work: $MAX \leq 6ma$
2. Self-consumption of activation action: 150ma-300ma.
3. Self-consumption after sleep: $max \leq 1ma$

Wake up the external BMS box in sleep state:

After external BMS box enter to sleep state, charge the the battery and the voltage meets the working conditions, it will recover the working state again.