

# 4-stages Smart Battery Charger

GLIDER-BATTERY.EU

-JTOV-

## USER MANUAL

### **IMPORTANT SAFETY INSTRUCTIONS**

Please read this manual and follow the instructions carefully before using the charger.

**Overview.** The device is 4 stages smart battery charger controlled by microprocessor with solid 4 LEDs charging indication. It is ideal for charging your LiFePO4 batteries. Suits for 4 cells LiFePO4 battery packs.

### **IMPORTANT WARNING:**

Before charging, make sure that charging current voltage is suitable for your battery.

## HOW TO USE:

1. Plug in the charger to AC socket. All the green LEDs will be flashing sequentially, then solid red "Power" LED will light on.
2. Connect positive charger clip (red) to positive battery terminal, negative (black) clip to negative terminal.
3. Charge battery and wait for 4 green LED lights indication that battery is full.
4. Disconnect power supply and the clips from battery.

## TROUBLESHOOTING:

<b><i>Problem</i></b>	<b><i>Error Code</i></b>	<b><i>Possible Causes</i></b>	<b><i>Suggested Solution</i></b>
<b><i>Charger Does Not Work?</i></b>	No "Power" LED indication	-No AC Power	- Check AC connection and make sure power source is switched ON
<b><i>No DC Output?</i></b>	4 LEDs Indicator flashing simultaneously	-Output is short circuited  -Reverse polarity connection to Battery	- Check DC connection between charger and battery and make sure they are not short circuiting. - Check if charger clips are connected to the correct polarity terminals on a battery. - Check the battery voltage
<b><i>No Charging Current?</i></b>	4 LEDs indicator lights are off	-Battery has voltage	- Battery voltage has reached BMS limit
		-Battery has no voltage	- Battery is defected

## **4-STAGE CHARGING PROCESS**

Stage 1: Pre-charge the battery through small current. Charger enters this stage if battery is deeply discharged. It helps to prolong battery life.

**(LEDs:1 ON, 2-4 OFF )**

Stage 2: Bulk charge using charger highest rated current for the type of battery in use. It lasts until 80% of capacity is reached.

**(LEDs:1-4 Blinking sequentially)**

Stage 3: Constant voltage. The output voltage is limited to 4.2V/Cells (3.6V/Cells for LiFePO4) while current declines as the battery charges to its full capacity without overheating.

**(LEDs:1-3 ON, 4 Blinking)**

Stage 4: Cut-Off. At this stage the battery is fully charged and the charger will cut-off output automatically. It means that the charger can be connected to battery indefinitely.

**(LEDs:1-4 ON)**

## **SPECIFICATIONS:**

Input:	100-240VAC@50/60Hz 0.5rms
Output:	4A
Limited voltage:	14.6V
Cut-Off current:	400mA
Charging mode:	Fully automatic 4 stages
Suitable battery type:	LiFePO4: 12.8V
Safety :	EN60950-1 EN60335
EMC:	EN55022
Approved:	SAA C-TICK CE RoHS
Country of origin:	China

## **WARNING!**

1. This charger is designed for charging LiFePO4 batteries pack. Do not use it for any other purposes.
2. Since batteries may emit explosive gases, always provide good ventilation and avoid any source of flames or sparks when charging.
3. To reduce risk of damage to electric plug and cord, pull by the plug rather than by the cord when disconnecting the charger.
4. Use of an improper extension cord could result in a risk of fire and electric shock.
5. Do not operate charger if you notice any signs of damage to charger or Cords.
6. Do not disassemble the charger. Take it to a qualified serviceman when service of repair is required. Incorrect reassembly may result in a risk of electrical shock or fire.
7. To reduce risk of electric shock, unplug charger from AC outlet before attempting any maintenance or cleaning.

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