

12/24 V input 25A output In-Car Charger for 12V Lead & LFP batteries SBC-5925



Especially designed for vehicles with Smart Alternator, Start-Stop, Regenerative Braking system

The SBC-5925 is designed to address the issues of wide swing of output voltages from the smart alternator, braking regenerative EURO 5/6 vehicles in fully charging the house battery. It is suitable for use with all old alternator system and distant house battery.

The charger Booster provides fast safe charging profiles for 4 types of lead based and 2 types of Lithium FePO4 batteries.

The built-in vibration sensor makes it possible to use the charger by just connecting to the starter battery terminal without touching the car's electrical /electronic wiring thus avoiding any possible excuse of revoking the car's warranty.

The digital control design of SBC-5925 makes it automatically select & adapt to 12V or 24V input alternator/ battery system.

Multistage Charging

This is a select (battery type) and forget charger designed for fast and accurate recharge of your deep cycle house battery. The smart multistage charging enables the charger to be connected permanently to your battery banks without the worry of over charging or drying out the electrolyte.

Lead acid based Battery

A 3 Stage Bulk, Absorption & Float charging profile for 4 types of lead acid based battery with maximum constant charging current at the Bulk Stage and a Constant Voltage with decreasing charging at the Absorption Stage and a reduced voltage Float Charge for maintenance when battery is full.

LiFePO4 (LFP) Battery

A 2 Stage charging is specially for 2 types LiFePO4 battery and charging current stops at the end of Absorption stage.

Three Charge Control Methods:

- Ignition Control: Charger starts charging only when ignition is on and stops charging when Ignition is off.
- Vibration Sensor Control: Charger starts charging when repeated vibrations are detected and stops charging when no vibration is detected for over 2 minutes.
- Input Voltage Control: This is for non-intelligent alternator with sufficient high & uniform voltage. Charging is cut off easily due to high threshold voltage to protect starting battery.

Features

- Auto select for 12V or 24V car system.
- Design for all alternators, conventional, smart alternators, start-stop & regenerative braking.
- 3 DC Charge Control Modes to select:
 - A. Vibration Sensor Control Mode.
 - B. Ignition Control Mode with Automatic on when ignition is on & off when Ignition is off or Manual on/off via push switch.
 - C. Input Voltage Control.
- Suitable for standard Lead Acid, AGM and Lithium Fe PO4 battery.
- 3 Stage charge for 4 types of Lead Acid based batteries.
- Specific 2 Stage charge for 2 types LiFePO4 battery.
- Comes with built in Vibration Sensor.
- Supplied with accessory Remote LED indicator Module showing:
Bulk /Absorption/ Float Charging Stage for Lead Acid battery types
Output Voltage of charger or Battery terminal voltage .

Protections

- Self Recoverable Input Under Voltage Protection.
- Self Recoverable Output Over Voltage Protection.
- Self Recoverable Over Temperature Protection.
- Self Recoverable Over Load Protection (C.C.) with constant current at decreased output voltage.
- Self Recoverable Input Reverse Polarity Protection
- Output Reverse Polarity Protection by thermal fuse.

Specifications

Rated output power	25A at 13.8VDC			
Optimal Efficiency	≥89%			
Input Voltage				
DC Input Voltage Range	9 - 16VDC (12VDC Input) / 18 - 32VDC (24VDC Input)			
Max. Solar Panel Open Circuit Voltage	30VDC			
No load input current	<50mA			
Output (Charge) Voltage				
Battery Type	Absorption	Float		
Lead	14.4V	13.3V		
Lead 2	14.6V	13.5V		
AGM	14.2V	13.1V		
AGM 2	14.7V	13.6V		
LiFePO4	14.4V	Stop		
LiFePO4 2	14.8V	Stop		
Alarm Output	12V / 50mA			
Size(W x L x H)	130x200x55 mm			
Weight	Approx. 870g			
Operation Temperature	-10 to +40°C (Ambient Temperature)			
Operating Mode				
	12V CAR		24V CAR	
	Input Voltage	Output Status	Input Voltage	Output Status
Vibration Sensor Mode	< 9V > 11V	Cut OFF Resume to On	< 18V > 22V	Cut OFF Resume to On
Ignition Control Mode	< 9V > 11V	Cut OFF Resume to On	< 18V > 22V	Cut OFF Resume to On
Input Voltage Control Mode	< 12.8V > 13.5V	Cut OFF Resume to On	< 25.6V > 27.0V	Cut OFF Resume to On