

SBC-2105 3 Stage Switching Mode Battery Charger

USER MANUAL

Introduction

This compact portable battery charger gives a fast and complete charge to Sealed and Wet types of lead acid battery within the capacity range of 25AH to 50AH.

Bulk – Absorption – Float Charge

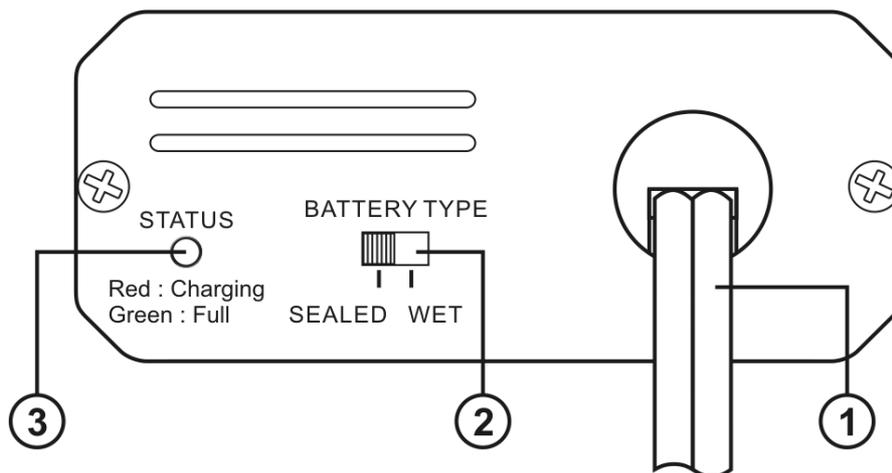
The Bulk stage charges the battery at a full constant current (5A) until the battery voltage reaches a slightly higher level, then followed by the Absorption Stage at which the battery is kept at this high voltage while charging current decreases to a low value.

When the battery is fully charged, it is then switched to the Float voltage where it can be maintained indefinitely.

Safety Precautions

1. Check the rating label of battery charger for correct AC mains (180 -260V 50Hz).
It is only for charging of 12V lead Acid battery with capacity within 25AH to 50AH.
2. Do not charge the battery with any load connected to the battery
3. Do not plug in the charger before connection to the battery .
4. Make sure the all the connections between the charger output and the battery are secured before plug in to AC mains. Do not move cables during charging as loosen cable connections will cause spark.
5. Double check for correct polarity connection between charger and battery before plug in to the AC mains socket.
6. Always unplug the charger before disconnecting the battery .
7. Do not smoke, strike a match, place metal tools on battery or cause a spark in the vicinity of the battery. When removing battery cables, remove ground cable first.
8. Lead Acid Battery contains highly corrosive sulphuric acid. Avoid contact with eyes, skin and clothing while working with battery.
9. Working in Vicinity of a Lead Acid Battery is dangerous. Batteries generate EXPLOSIVE gases during normal operation.
10. Do not expose charger to rain, snow and wet conditions.
11. Use charger only for Lead-Acid Batteries.
12. Do not attempt to repair the battery charger. Incorrect re-assembly may result in a risk of electric shock or fire.

Control and Indicators



1. Output Terminals for connection to battery
2. Battery Type Switch for selection charged battery : Sealed or Wet type.
3. Charging Status LED :
When charger is connected to a battery Green means battery full or Float
When charger is connected to a battery Red means Charging in progress.
When charger is not connected to a battery Green means charger is powered on .

Installation Procedures

- A. Use Switch (2) to select the correct type of battery for charging.
- B. Connect the positive charger terminal to the positive battery terminal.
- C. Connect the negative charger terminal to the negative battery terminal.
- D. Double check for correct polarity and all the connecting joints are secured.
- E. Turn on the charger and take note of the green LED.
- F. Unplug the A C mains to the charger before disconnecting battery.

Note: The charger can be safely left connected to battery permanently.

Specifications

	SBC - 2105
AC Input Voltage 180-260V, 50Hz~	Yes
AC Input Current at full load at 230Vac	0.8A
Output (Charge) Voltage Selections (2 Battery Type)	
Sealed Battery - Absorption (13.8V to 14.1V); Float (13.2V to 13.5V)	Yes
Wet Battery - Absorption (14.1V to 14.4V); Float (13.4V to 13.7V)	Yes
Maximum Output Charging Current (Continuous)	5A
Line Regulation (180V to 260V) for Charging Current	0.6%
Ripple and Noise (Peak to Peak)	120mV
Efficiency at Maximum Power	84%
Protection :	
Short Circuit Protected	Yes
Overload Protection (Automatic Reset)	Yes
Reverse Polarity Protection (Automatic Reset)	Yes
Over Temperature Protection (Automatic Reset)	Yes
OVP (Output Over Voltage Protected (Automatic Reset)	Yes
Battery Under Voltage Protection (Automatic Reset), <i>when battery voltage <7.5V, charger will stop charging battery</i>	Yes
CE Approvals and Standard	EN60335, EN55014
Charge Indication	1 LED, Red : Charging, Green : Full or Float
Anodised Aluminum Casing	Yes
Size in mm (Width x Height x Depth)	142 x 75 x 32mm
Weight in gm	380g
Included Accessories (Cable, Mounting Clips)	Yes
Recommended Battery Capacity Range	25AH to 50AH
Remark : 110VAC 60Hz~ Input on RequestAC	

All values are based on the Standard ambient Temperature 25°C and Pressure 0.1Mpa.

** SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE **