

CAUTION

1. **SAVE THIS INSTRUCTIONS-** This manual contains important safety and operating instructions for the GC60-12A battery charger.
Please read the caution of batteries or devices you want to charge firstly!
2. When charging, batteries can emit explosive gases, therefore it is essential to prevent flames and sparks. The charger is designed for charging lead-acid batteries from 7 to 80 Ah. Do not use for any other purpose.
3. Always provide good ventilation when charging.
4. Use of an attachment not recommended or sold by Gudy Electronics Ltd may result in a risk of fire, electric shock or serious injury to persons.
5. To reduce risk of damage to electric plug and cord, pull by the plug rather than by the cord when disconnecting charger.
6. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure that: a) Pins on plug of extension cord are the same number, size and shape as those of plug on charger; b) Extension cord is properly wired and in good electrical condition; and c) Wire size is large enough for ac ampere rating as specified in "technical data".
7. Do not operate charger with a damaged cord or plug-return the charger to the place where purchased.
8. Never operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way; take it to a qualified serviceman.
9. Do not disassemble the charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electrical shock or fire.
10. To reduce risk of electric shock, unplug charger from AC outlet before attempting any maintenance or cleaning. Turning off controls will not reduce the risk.



GC60-12A 12V Lead-Acid Battery Charger

User's Manual



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Brief Introduction

GC60-12A is based on switchmode technology, which make it them more efficient and smaller, and with microprocessor controlled to make it very accurate. It is programmed smart 4-stage (Ud-Im-Uo-Up) charging process, It is designed for all kinds of 12V 7~80Ah lead-acid battery, such as SLA, AGM and Gel battery. Stage “Ud” desulfurating the battery through 18V pulse, When the battery recovered, stage “Im” will give bulk current charging(3.3A or 2.0A). Then, “Uo” stage is followed, the output voltage is limited on 14.7V; When the battery is nearly full, stage”Up” will turn on duty. At this stage, the battery is charged completely and the charger give some pulse to maintenance the battery.

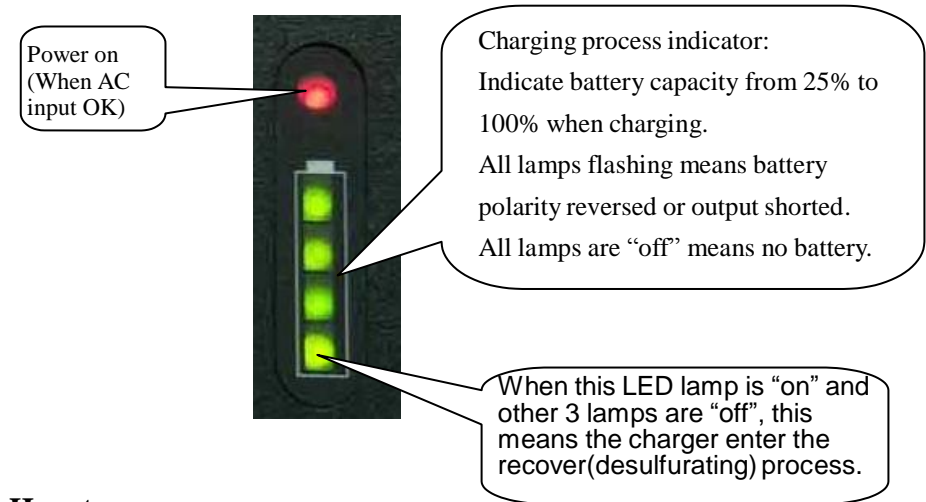
What’s more, it can display the charging process, indicate the battery capacity from 25% to 100% timely. This is helpful for user.

For more safety, it will enable protection mode when the battery polarity reversed or the output connectors shorted.

Specs for GC60-12A

Input Voltage	100-240VAC, 50-60Hz
Input Current	1.1A
Back current drain	1.3mA
Charge voltage	Rating 12V, Bulk limited voltage : 14.7V
Ripple current	Current-ripple:<= 0.13A rms
Bulk charge current	3.3A for GC60-12A, 2.0A for GC60-12AS
Operate Temperature	-20℃~50℃
Cooling	Natural convection. Do not cover the charger.
Charge principle	Auto 4 stages: Ud-Im-Uo-Up
Battery type	All types of 12V lead-acid batteries.(SLA, Gel, AGM....)
Battery capacity	7-80Ah for GC60-12A, 4~40Ah for GC60-12AS
Size	120X67X41mm
Enclosure	IP54 (Dust protected, Water splashing resistance)
Weight	270g

Display Panel



How to use:

1. Connect the AC cord to the socket, The “power” lamp will light on RED.
2. Connect positive charger clip (red) to positive battery terminal, the black clip to negative. (You can use other dc plugs to connect battery), the “25%~100%” lamps will light on flowing. If the battery polarity reversed or output shorted, all lamps will flashing, please check the setup.
3. Depend on the charged capacity, 25%~100% lamps will lights up solid sequence, until the battery is fully charged. Then you can power off the charger and disconnect the battery or you can charge a new battery if you need.

The table shows the duration of the Bulk stepup to about 80% state of charge.

Battery type (Ah)	GC60-12A (hours)	GC60-12AS (hours)
12	3	5
22	7	10
45	14	20
75	22	Not recommend