

CAUTION

1. This manual contains important safety and operating instructions for the G60-12A 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 any attachment is not and 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.

G60-12A 12V Lead-Acid Battery Charger



User's Manual

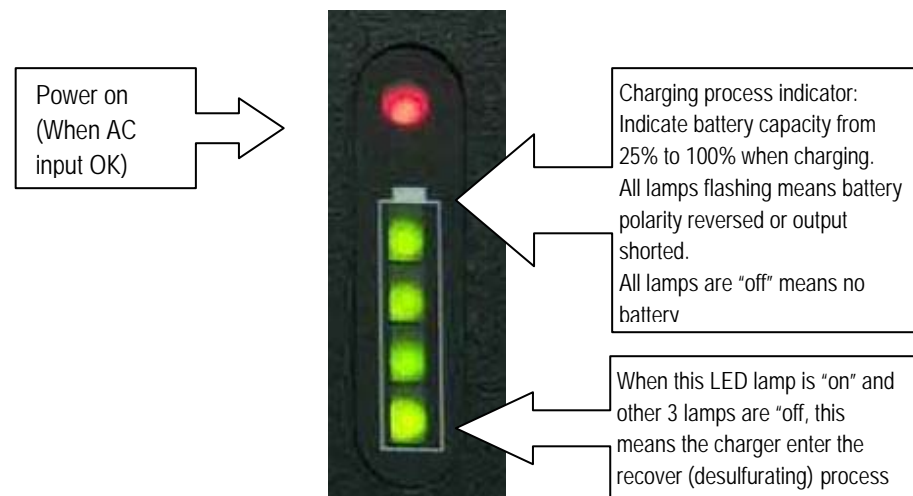
Brief Introduction

G60-12A is a main member of digital-chargers from Elcon Europe Ltd. It represents today's new technology for lead-acid type battery charging. G60-12A programmed four auto stages (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" will desulphate the battery through an 18V pulse. When the battery is recovered, stage "Im" will give bulk current charging (3.3A). Then, "Uo" stage is followed, the output voltage is limited on 14.7V. When the battery is nearly full, stage "Up" will turn on. At this stage, the battery is charged completely and the charger will give some pulse charger to maintain the battery. The G60-12A charger will display the charging process, indicating the battery capacity from 25% to 100%, this is helpful for user. For more safety, G60-12A will inter protection mode when the battery polarity reversed or the output connectors shorted.

Specification for G60-12A

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 G60-12A, 2.0A for G60-12AS
Operate Temperature	-20 °c ~ +50 °c
Cooling	Natural convection. Do not cover the charger.
Charge principle	Auto 4 stages: Ud-I-Uo-Up
Battery type	All types of 12V lead-acid batteries. (SLA,Gel, AGM...)
Battery capacity	7-80Ah for G60-12A
Size	120mm x 67mm x 41mm
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 solid. Indication light will indicate a battery which is connected to reverse polarity.
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. If the battery polarity reversed or output shorted, all lamps will flashing, please check the setup.
3. Depending on the charged capacity, 25%-100% lamps will lights up solid in 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 step up to about 80% state of charge

Battery type (Ah)	G60-12A (hours)
12	3
22	7
45	15
75	22