

**12 Volt 1.7 Amp  
Automatic Battery Charger**  
Operating Instructions  
Please read these instructions before use



The GSL Battery Charger is a 2 Mode Boost and Float Charge Type, utilising linear technology and designed to charge 12 Volt Lead Acid Batteries.

**Battery Charger Operation:**

As a Lead Acid Battery Charger, the unit provides a safe method of restoring discharged batteries, via Boost and Float Mode circuitry.

**Boost Mode** – This mode of the battery charger delivers bulk charging current up to 1.7 Amps into the battery to be charged. Once the battery voltage rises to approximately 13.6V, it means that the battery is up to 80% re-charged. Once this occurs the charger then switches automatically to Float Mode.

**Float Mode** – In this mode the battery charger output current is reduced to below 1A. The battery is eventually brought up to a 100% recharge level and is constantly maintained at that level with the charger supplying just enough current to maintain the battery at full capacity.

**Indicator Showing Battery Status :**

Color	Condition
Red - Boost	The battery voltage is relatively low, the unit is charging at almost full output current.
Orange- Float	Battery charger in the float mode, charge current is below 1A and the fan is off.
Green - Power	Indicates that the AC power is available.

**Procedures for Charging a Discharged Battery:**

The charger is intended for 12V lead acid batteries with a capacity ranging from 10AH to 50AH. To avoid reverse polarity connection, the charger output leads are fitted with coloured battery clips for easy identification:

**Red for (+) Positive pole and Black for (-) Negative pole.**

1. Before connecting charger to battery, ensure that 240VAC power is switched off.
2. Disconnect all battery cables i.e. vehicle battery cables etc.
3. Remove cell caps from battery and check electrolyte levels in each cell with hydrometer. Ensure that electrolyte levels cover all plates in each cell completely.
4. Connect (+) positive and (-) negative clips to the respective battery terminals, ensuring a firm connection.
5. Connect battery charger to 240VAC power point and switch ON.
6. During the charging process the battery may be bubbling and emitting gases. This is quite normal.
7. When the battery is fully charged, switch 240VAC power OFF and remove the charger cables from the battery.

**Battery Charging Times:**

The question of “how long will my battery take to re-charge” is always asked. Firstly, the charge rate (CR) of a battery is rated in Amps and the battery capacity (C) in Amp Hours. The battery manufacturer for each battery type normally states this CR. As a rule of thumb, a lead acid battery generally should be charged under 1/5 of C.

For example if you have a 20Ah battery, the recommended max. Charging current is  $20 / 5 = 4A$ . The majority of the battery capacity would normally be charged in 12 hours using a 1.7 Amp battery charger.

**12 Volt 1.7 Amp  
Automatic Battery Charger**  
Operating Instructions  
Please read these instructions before use



**Installation & Safety Precautions:**

1. During charging process, do not use a naked flame near a battery, due to gases emitted from the battery, which may ignite and explode.
2. Never smoke or light cigarettes near a battery.
3. Do not place tools on top of battery or allow tools to fall on battery.
4. Always wear eye protection near a charging battery.
5. Ensure a "well" ventilated area is used when testing or re-charging batteries.
6. Ensure ventilation is adequate and venting holes are not obstructed. Inadequate ventilation may over-heat the unit and cause inefficient operation.
7. The battery charger is intended for internal use only. Do not expose it to extreme weather conditions e.g. rain or dampness.
8. If skin or clothing comes into contact with acid, flush the area(s) with water immediately. Seek medical attention if necessary.
9. The battery charger contains hazardous voltages. There are no user serviceable components inside. Return it to place of purchase if the product requires service.
10. The appliance is not intended for use by young children or infirm persons.
11. Do not attempt to charge non-rechargeable batteries.

Specifications	
AC Input Voltage	180 - 250V
AC Frequency	45 - 55 Hz
AC Current (A)	0.3A max
Float Charging Voltage	14.3V DC
Output Current (A) approx. max.	1.7A @ 12.5V
Output impedance	0.8 Ohm
Efficiency (Approx)	65%
Indicators	AC power, Boost and Float
Protection:	
Overload, Short Circuit and Reverse Discharge	√
APPROVALS: Safety Standards No Q60301	AS/NZS 3350.2.29:2001
C Tick No.N1408 ( EMI, RFI )	AS/NZS2064 Group 1, Class B
Cooling	Natural convection
Dimensions (mm)	130L x 90W x 50H
Weight	1Kg

*Warranty Conditions:* The product is warranted to be free from defects in materials and workmanship under normal use and service for a period of 24 months from the date of sale. This warranty covers defective parts and workmanship provided that the product is shipped prepaid to the seller within 24 months of purchase of goods. This warranty is limited to the repair or replacement (at the manufacturers' discretion) of parts and shipping prepaid to the original despatch destination. We regret that no liability can be accepted for consequential or special damages of any kind howsoever arising in connection with products supplied by the seller. This warranty is in lieu of all other warranties expressed or implied. No representative is authorised to assume for the seller any other liability in connection with the seller's products.

