



The GSL Model BC240-1201 & BC240-1202 Battery Chargers are a 2 mode boost and float Charger utilising linear technology and are 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** – The 'Boost' mode has been designed to automatically charge batteries at a faster rate. Once the battery voltage reaches approximately 80 % of charge the unit 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 :

Colour	Condition
Red - Boost	Battery charging at full output.
Yellow - Float	Battery charging in float mode.
Green - Power	Indicates that the AC power is available.
Red & Yellow - Transition	The charger is moving from bulk to float mode.

### Installation & Safety Precautions:

1. This appliance is not meant for use by young children or infirm persons without supervision.
2. Young children should be supervised to ensure that they do not play with the appliance.
3. During charging process, do not use a naked flame near a battery, due to gases emitted from the battery, which may ignite and explode.
4. Never smoke or light cigarettes near a battery.
5. Do not place tools on top of battery or allow tools to fall on battery.
6. Always wear eye protection near a charging battery.
7. Ensure a "well" ventilated area is used when testing or re-charging batteries.
8. Ensure ventilation is adequate and venting holes are not obstructed. Inadequate ventilation may over-heat the unit and cause inefficient operation.
9. The battery charger is intended for internal use only. Do not expose it to extreme weather conditions e.g. rain or dampness.
10. If skin or clothing comes into contact with acid, flush the area(s) with water immediately. Seek medical attention if necessary.
11. The battery charger contains hazardous voltages. There are no user serviceable components inside. If the AC supply cord is damaged, in order to avoid a hazard it must be replaced by the manufacturer or its service agent or a similarly qualified person.

## 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 50Ah battery, the recommended max. charging current is :  $50 / 5 = 10A$ . The majority of the battery capacity would normally be charged in 5 hours using a 10 Amp battery charger. Similarly it would take approximately 10 hours to charge a battery with a 5 Amp battery charger.

**\*Please note the figures quoted above could vary depending on the battery condition.**

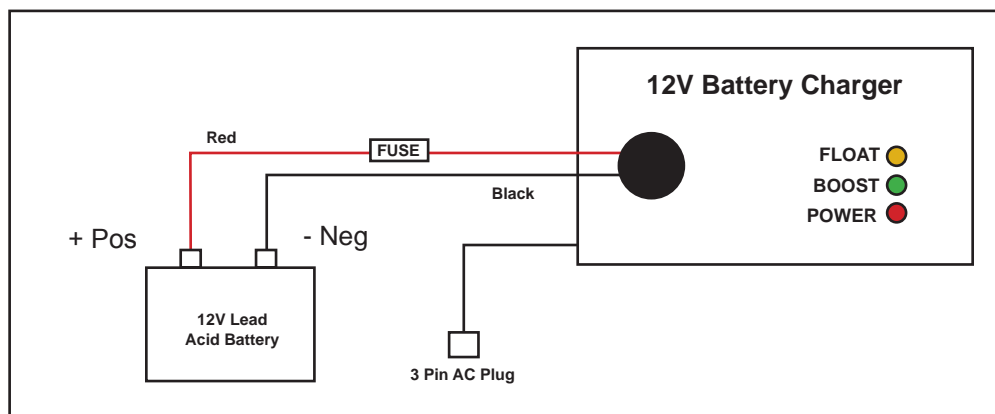
## Procedures for Charging a Discharged Battery:

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.**

**Prolonged output short circuit (above 20 seconds) or polarity reversal may require replacement of the output lead 5A 12V output blade fuse for BC240-1201 and 10A 12V blade fuse for BC240-1202. If the Yellow & Red lights are not lit, check fuse and replace with the correct type (As per your model) if necessary.**

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.



**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.