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# Go Power! Manual

*GP-Smart Charger*



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## Warning!

Before you install and use your GP Battery Charger, be sure to read these safety instructions

## 1. Important Safety Instructions

To get the most out of your battery charger, it must be installed and used properly. **Please read the instructions in this manual before installing and using your battery charger.**

### 1.1 General Safety Precautions

1. Do not expose the GP Battery Charger to rain, snow, spray, bilge or dust. To reduce risk of hazard do not cover or obstruct the ventilation openings.
2. Do not install the GP Battery Charger in a zero-clearance compartment. Overheating may result.
3. As a general rule, do not charge a sealed battery with this charger.
4. Do not charge non-rechargeable batteries.
5. To avoid a risk of fire and electronic shock. Make sure that existing wiring is in good electrical condition. Do not operate the GP Battery Charger with damaged or substandard wiring.
6. The charger should be kept in a well-ventilated area during operation.
7. The battery charger must only be plugged-in to a grounded outlet.
8. Replace power cord if it is damaged.
9. It can take many hours for a battery to be fully charged after it has gone into float mode. If possible, leave the battery in float charge for several hours after a Bulk Absorption charge. This will ensure a full battery. Although it is fine to leave a battery in float charge indefinitely, leaving a power supply unattended for long periods of time is may have risks therefore safety is at the owner's discretion.

### 1.2 Precautions When Working with Batteries

1. If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eye, immediately flood eye with running cold water for at least 20 minutes and get medical attention immediately.
2. Never smoke or allow a spark or flame in vicinity of battery or engine.
3. Do not drop a metal tool on the battery. The resulting spark or short-circuit on the battery or other electrical part may cause an explosion.
4. Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a lead-acid battery. A lead-acid battery produces a short-circuit current high enough to weld a ring, or the like, to metal, causing a severe burn.

## 2. Features

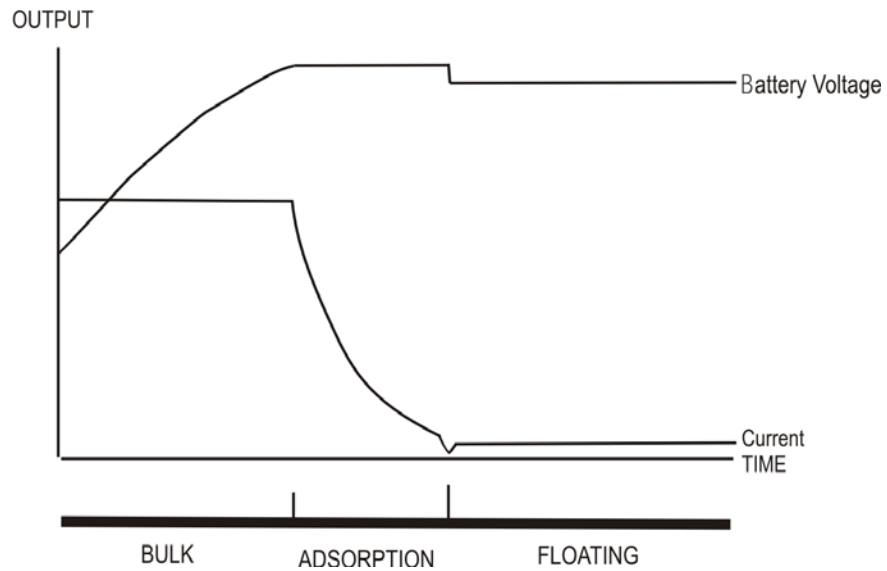
This GP Battery Charger series is a high frequency switching mode 3-stage battery charger and equipped with a micro controller and PFC circuit. This allows the GP Battery Charger to perform intelligent battery management and to provide highly reliable operation. Before using the GP Battery Smart Charger, read all instructions and cautionary marking on this manual. High-performance 3-stage charging effect

- Advanced 8-bit microprocessor control circuit reverse battery protected by fuse

- Ignition protection
- Output short circuit protection over power protection
- Switch mode technology
- Easy to read LED for system status
- Compact size, light weight

## 2.1 Battery Charging Curve

CHARGING CURVE



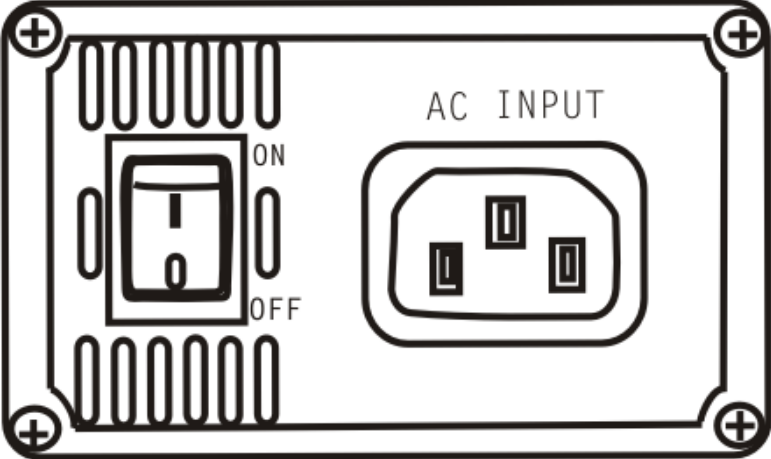
IU Charging Characteristic

## 2.2 Electrical Performance

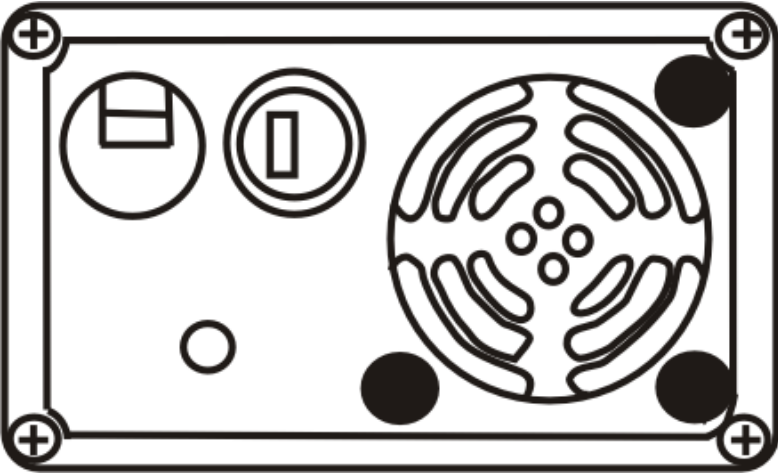
Specification	Technical Data
Model No	<b>GPSC-12-10A</b>
Power Watt	160 W
Input Voltage	100-240 VAC / 50-60 Hz (Automatic Switching)
Power Factor	PF: 0.98
Nominal Voltage	12 VDC
Bulk Voltage	14.4 VDC
Float Voltage	13.65 V DC
Output Current	10 A Max.
Safety	UL 1236, CE, TUV, Pending
Battery Type	Wet Acid or Bulk Rating >14.3V (usually non sealed)
EMC	FCC Class A EN55022: 1994/A1: 1995/A5: 1997 EN61000-3-2: 2000, EN61000-3-3: 1995 and EN55024: 1998
Dimensions	210 (L) x 85 (W) x 50 (H) mm / 8.26 (L) x 3.34 (W) x 1.96 (H) Inch
Weight	0.9 kg. / 1.8 lbs

**2.3 Mechanical Drawings**

**Front view:**  
Power ON/OFF switch, leave in the OFF position during the installation.



**Back view:**

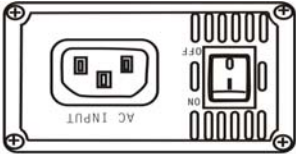


**2.4 LED status**

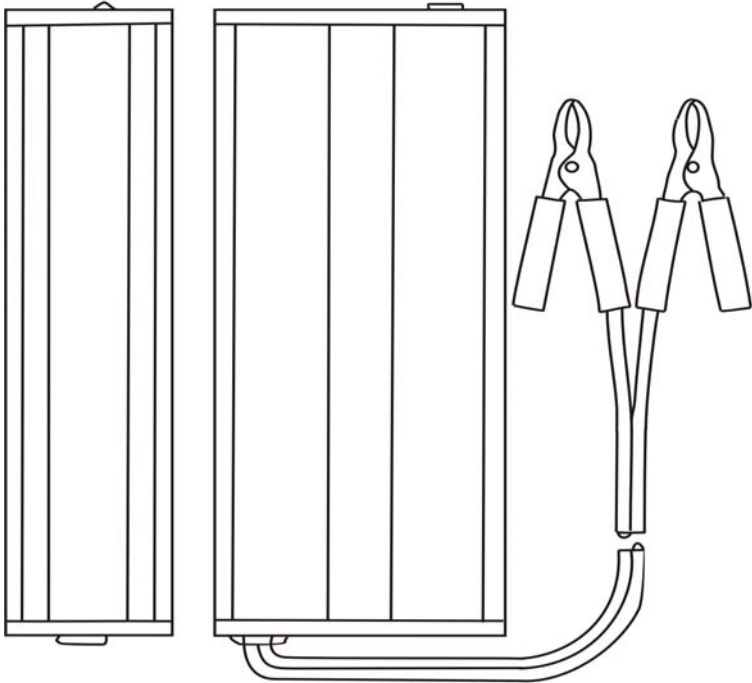
Charging status	LED indication
Fast Charge	Blinking green fast
Slow Charge	Blinking green slow
Floating Charge	Solid green
Charging Fault	Blinking red
Bad battery or wire distribution	Blinking red

2.5 Mechanical Drawings

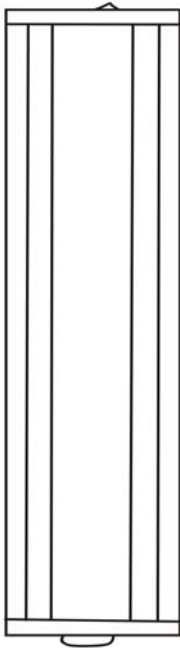
Front



Top



Side



Back



### 3. LED Status Troubleshooting

Problem and Symptoms	Possible Cause	Solution
"Red" LED Blinking	Battery is disconnected	Check the battery connection
	Battery fault	Change battery
LED light off	No AC power delivering	Check input power connection
	Polarity reverse	Change cables to the correct polarity. - Check DC fuse, if broken replace the fuse.
	Thermal Shutdown	Make sure ventilation is not obstructed. Improve ventilation. Reduce ambient temperature.

#### 3.1 Selection of battery types:

Use only Wet Lead Acid batteries or Lead Acid batteries with a bulk setting of 14.3V or higher. **The GP-1210 voltage settings are not adjustable.**

Model No	Battery Capacity (Min.)	Battery Capacity (Max.)
GP-1210	12V / 30 Ah	12V / 100 Ah

### 4. Warranty

We warrant this product against defects in materials and workmanship for a period of 12 months from the date of purchase and will repair or replace any defective Go Power! Battery Charger when directly returned, postage prepaid, to the manufacturer. This warranty will be considered void if the unit has suffered any obvious physical damage or alteration either internally or externally, and does not cover damage arising from improper use such as plugging the unit into unsuitable power sources, attempting to operate products with excessive power consumption requirements, reverse polarity, or use in unsuitable climates.

This is the only warranty and the company makes no other warranties, express or implied, including warranties of merchantability and fitness for a particular purpose. Repair or replacement are your sole remedies and shall not be liable for damages, whether direct, incidental, special or consequential, even though caused by negligence or other fault.