

## MODEL 2610

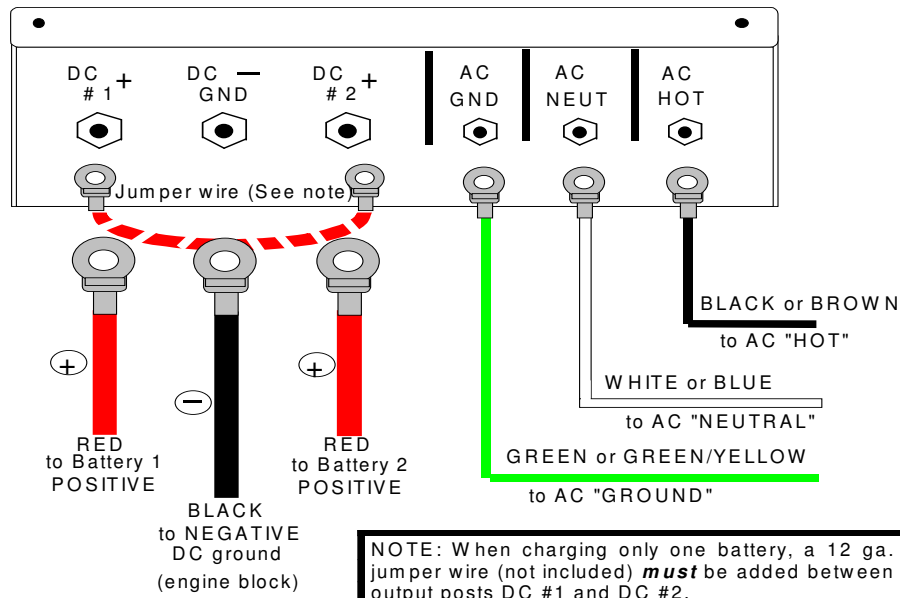
### 10 AMP ON BOARD BATTERY CHARGER

#### Two Output

#### OWNER'S MANUAL

#### Connections at a glance:

For the best charging results both 12 Volt independent batteries should be equally discharged. The charger will supply 5 Amps to each battery output for a total of 10 Amps. When unequally discharged batteries are connected to the outputs, the charger will automatically steer more current to the battery that needs it. We recommend that you set up the charger near the batteries you wish to charge, and make connections in the following order:



**NOTE:** When charging only one battery, a 12 ga. jumper wire (not included) *must* be added between output posts DC #1 and DC #2.

**SAVE THESE INSTRUCTIONS**

# **1. INTRODUCING THE CHARGER**

The GUEST ChargePro 2610 is designed to both recharge your batteries, and extend your battery's life in applications where it is stored for long periods of time. The 2610 is a "3-stage" electronic battery charger with two independent outputs. Rainproof, lightweight, silent, and completely automatic, it produces 12 Volts DC at a full 10 Amps, while using much less AC current than older chargers. Unlike automotive "trickle" chargers, the 2610 will not boil off the electrolytes in lead-acid batteries when left unattended. When the 2610 is attached to your batteries and plugged into a standard 115 Volt / 60 Hz AC outlet, the red and green LED's let you know the unit is *recharging* and *maintaining* your batteries.

# **2. IMPORTANT SAFETY INSTRUCTIONS**

This manual contains important safety and operating instructions for the charger. Read the entire manual before using. Also read all instructions and cautions for and on the charger, batteries and equipment in the vicinity of the batteries.

## ***WARNINGS***

**THIS CHARGER SHOULD BE USED TO CHARGE SINGLE OR DUAL 12 VOLT DC LEAD ACID OR GELL TYPE BATTERIES. USE ON OTHER THAN A 12 VDC SYSTEM CAN CAUSE THE BATTERIES TO EXPLODE AND CAUSE PERSONAL INJURY.**

**RISK OF EXPLOSIVE GASES! WORKING IN THE VICINITY OF LEAD ACID BATTERIES IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL OPERATION. THEREFORE IT IS OF UTMOST IMPORTANCE THAT EACH TIME BEFORE USING YOUR CHARGER YOU FOLLOW THE INSTRUCTIONS EXACTLY.**

## **Personal Safety Precautions**

Adhere to the following personal safety precautions when installing or working with the chargers:

1. Someone should be within voice range or close enough to come to your aid when you work near a lead-acid battery.
2. Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
3. Wear complete eye protection and clothing protection. Avoid touching eyes while working near a battery.
4. If battery acid contacts skin or clothing, wash them immediately with soap and water. If acid enters the eye, flood the eye with cold, running water for at least ten minutes and get medical attention.
5. Never smoke or allow an open flame in the vicinity of the battery.
6. Do not drop a metal tool onto the battery. It may spark, short circuit the battery and may cause an explosion.
7. Remove all personal metal items such as rings, bracelets, necklaces, and watches when working near a lead-acid battery. A battery can produce short circuit currents high enough to weld a ring or the like to metal, causing a severe burn.

## Preparing to Charge Precautions

Before charging a battery with the charger, read the following precautions:

1. Do **NOT** operate the charger if a power cable or an LED is damaged.
2. Make sure all accessories on the product you are charging are **OFF**.
3. If the battery or batteries must be removed from the product, always remove the grounded terminal from the battery first.
4. Be sure the area around the battery is well ventilated while the battery is being charged. Gas can be forcefully blown away using a piece of cardboard or other non-metallic material as a “hand fan”.
5. Clean battery terminals. Be careful to keep corrosion from coming in contact with eyes.
6. Add distilled water in each cell until battery acid reaches levels specified by the battery manufacturer. Do not overfill. For a battery without cell caps, carefully follow the manufacturer’s recharging instructions.
7. Never allow the ring terminals to touch each other.
8. **NEVER** charge a frozen battery.

## Grounding Precautions

### ***DANGER***

**Do not operate this charger with a two bladed adapter plug or extension cord. Doing so can result in serious personal injury.**

***CAUTION:*** To reduce the risk of shock, connect only to a properly grounded outlet.

## **3. INSTALLING THE CHARGER**

### **Choosing Charging Location**

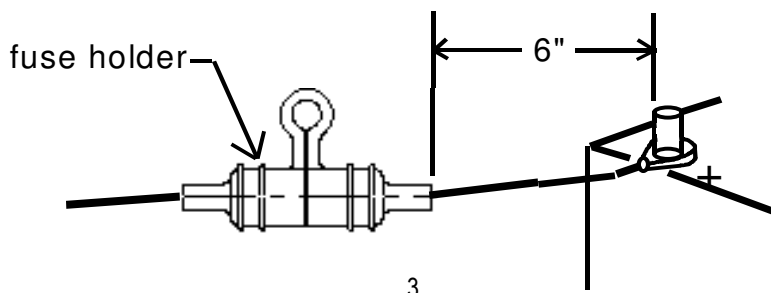
The charger should have at least eight inches of unobstructed area on all sides of the unit for effective cooling. The case of this charger will become warm during operation. Do not install the charger on carpeted, upholstered, or varnished surfaces.

### **Mounting the Charger**

1. Use corrosion resistant #10 dia. bolts, backed by a flat washer, and secured to the mounting surface with a split-ring lock washer.
2. Hold the charger to the mounting surface and mark the holes.
3. Remove the charger and drill the mounting holes.
4. Align the charger and assemble the mounting hardware. Secure.

### **Making DC and AC Connections**

We require using a 15 amp fuse P/N AGX-15 or equivalent on the DC side as pictured below.

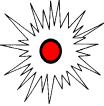

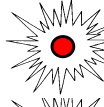


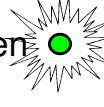


This battery charger is ideal for installations using two independent 12 Volt lead-acid or gel-cell batteries connected in 12 VDC systems.

1. Check polarity of the battery posts. The POSITIVE (POS., P, +) battery post usually has a larger diameter than the NEGATIVE (NEG., N, -) post.
2. After securing the battery connections, plug the AC line cord into an available AC outlet that is protected by a Ground Fault Circuit Interrupter (GFCI) breaker.

#### **4. OPERATING THE CHARGER**

The **LED Function Chart** below describes the charging process.

<b>Display</b>	<b>Operating condition</b>
Red  Green 	<p>When the red LED is on, it indicates that your batteries are discharged and the 2610 is recharging them at the "BULK" rate (stage 1). This charging rate is 10 Amps.</p> <p>While the red LED is on, the voltage measured (with the charger on) will be 11.8 to 13 Volts.</p> <p>If the red LED stays on for more than 24 hours, refer to Problem 1 in the troubleshooting section in this manual.</p>
Red  Green 	<p>When both the green and the red LED's are on, the 2610 is charging at an "ABSORPTION" rate of between 3 and 9 Amps (stage 2). This mode of charging gradually "tops off" your batteries, and reduces harmful sulfating.</p> <p>While both LED's are on, the voltage measured (with the charger on) should be approx. 13.5 to 14.5VDC.</p> <p>If both lights stay on longer than 24 hours, refer to Problem 2 in the troubleshooting section in this manual.</p>
Red  Green 	<p>When the green LED is on, the 2610 is charging at a "FLOAT" or "MAINTENANCE" rate of less than 3 Amps, (stage 3). Your batteries are now 90% charged and ready for use. This "float" charging current will gradually decrease to as low as 0.1 Amps as the batteries reaches 100% charge. They will now be kept at full charge without over-charging.</p> <p>If the green LED stays on when your battery is known to be low, refer to Problem 3 in the troubleshooting section in this manual.</p>

#### **5. MAINTAINING THE CHARGER**

Periodically clean both battery terminals with baking soda and tighten all connections. No maintenance on the charger is required.

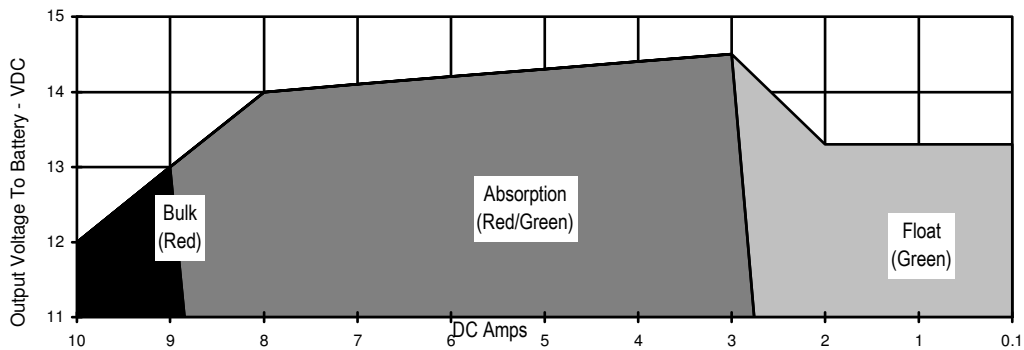
## **6. TROUBLESHOOTING**

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
1. Red LED stays on for more than 24 Hrs.	<ol style="list-style-type: none"> <li>1. One or more defective or damaged cells.</li> <li>2. Charger has reduced its output voltage below the normal level due to a DC overload or a DC short.</li> <li>3. On-board DC systems are drawing more current than the charger can replace.</li> </ol>	<ol style="list-style-type: none"> <li>1. Load test the batteries and replace if necessary.</li> <li>2. Remove the source of the overload or short. Disconnect the charger's black (NEGATIVE) ring terminal from the battery. Reapply AC power and the green LED only should now light.</li> <li>3. Turn off all DC equipment while charging.</li> </ol>
2. The red and green LED's stay on for more than 24 Hrs.	<ol style="list-style-type: none"> <li>1. On-board DC systems are drawing between 3 to 9A.</li> <li>2. One or more defective or damaged cells.</li> <li>3. Extremely low AC voltage at the battery charger.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn off all DC equipment while charging.</li> <li>2. Load test the batteries and replace if necessary.</li> <li>3. Apply a higher AC voltage source or reduce the length of the extension cord.</li> </ol>
3. Green LED stays on when the battery is known to be low.	<ol style="list-style-type: none"> <li>1. Open DC output fuse.</li> <li>2. Faulty or contaminated terminal connections.</li> <li>3. One or more defective or damaged cells.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace DC output fuse with a Bussmann (AGX-15).</li> <li>2. Clean and tighten or repair all terminal connections.</li> <li>3. Load test the batteries and replace if necessary.</li> </ol>
4. Neither of the LED's turn on when the AC power is applied.	<ol style="list-style-type: none"> <li>1. No AC power available at the charger.</li> <li>2. Component failure</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect AC power or reset the AC breaker on the main panel.</li> <li>2. Return charger to the Guest Service Dept.</li> </ol>

## 7. SPECIFICATIONS

<b>Output:</b>	
Charging:	12 Volts DC(min.) @ 5 Amps each
Maintaining:	13.30 $\pm$ 0.3 Volts DC at 0.1 Amps
<b>Input:</b>	
Rated AC Voltage	100 – 130 VAC, 50/60 Hz
Current Draw	2.0 Amps at full output
<b>Maximum recommended battery size:</b>	
For recharging:	Up to 100 Amp-Hours
Maintenance only:	Up to 150 Amp-Hours
<b>Physical Dimensions:</b>	
Height:	4.38 in. (11.13 cm.)
Width:	7.25 in. (18.42 cm.)
Depth:	2.13 in. (5.41 cm.)
Weight:	5.6 lb. (2.5 kg)

### Guest Model 2610 Charging Method



## FCC Class A EMC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning this equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

### LIMITED WARRANTY

For two (2) years from the date of original purchase, The Guest Co. will, at its discretion, repair or replace for the original consumer, free of charge, any parts found defective in material or workmanship. All transportation charges under this warranty must be borne by the consumer.

Proof of purchase is required: A computerized register receipt is required. Hand-written receipts are not accepted for warranty proof of purchase. In the absence of a receipt, warranty period will be calculated from date of manufacture printed or stamped on the product.

There is no other expressed warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to two years from the date of purchase. This is the exclusive remedy, and consequential damages are excluded where permitted by law.

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