

CHRISTIE ENGINEERING PTY LTD

123 Delaware Rd Horsley Park NSW 2164

Ph/Fax: 02 9620 1208 Email: enquiries@christieengineering.com.au

ABN 56 002 534 474

OUTBACK BATTERY CHARGER – OPERATING INSTRUCTIONS **BASIC MODEL 2.5HP/3HP**

SAFETY:

1. Fuel should be stored in approved fuel containers.
2. Do not smoke near the battery charger.
3. Always switch off engine before re-fuelling and allow the engine to cool down first and avoid spilling petrol.
4. When using the battery charger in remote places, make sure dry grass or any other flammable materials cannot be ignited by sparks or the hot exhaust system.
5. Do not use this battery charger in confined spaces, make sure the area is well ventilated as exhaust gases are deadly.
6. Repairs should only be carried out by qualified tradespersons.
7. Never leave your battery charger unattended whilst it is running. Petrol engines may vibrate & fall over, which could cause a fire.
8. Disconnect the battery charger leads from the battery as soon as the charging process is complete.

OPERATING INSTRUCTIONS:

1. Check the engine oil and fuel levels before starting.
2. Always connect the leads onto the generator control panel first, and then connect the alligator clamps to the battery before starting.
3. Clamps should be connected:
POSITIVE+ TO POSITIVE+, NEGATIVE- TO NEGATIVE-, NEVER REVERSE THE LEADS AS THIS WILL CAUSE PERMANENT OR SEVERE DAMAGE TO THE ALTERNATOR AND REGULATOR AND YOUR BATTERIES.
4. The “HIGH/LOW” switch must be in the “OFF” position before starting.
5. Start the engine by the key switch or pull start according to the manufacturer’s instructions.
6. Allow the engine to warm up and gain oil pressure for a few minutes by running at a low idle speed.
7. Switch the “HIGH/LOW” switch to the “LOW” position and then flick the “START CHARGE” switch on then release it (3hp only), or for the 2.5hp just increase the accelerator to max revs, (This excites the alternator fields).
8. If the charger is used for stand-by use purposes, it is advised to stay switched on the “LOW” position for a float charge.
9. For a fast charge time, switch the “HIGH/LOW” switch to the “HIGH” position for a boost charge. If the engine becomes overloaded on this setting due to a larger current drag from larger battery banks, keep the switch on “LOW” to slowly increase the battery voltage, then switch up to “HIGH”.
10. Before removing the alligator clamps from the battery, switch the “HI-LOW” switch to “OFF”. (This is to avoid any sparks which may cause an explosion of Hydrogen gas build-up from the charging process.
11. ALWAYS DISCONNECT THE LEADS FROM THE BATTERY WHEN THE ENGINE IS STOPPED.

MAINTENANCE:

- Check fuel and oil levels before starting, fill the oil to the top of the filler hole with the engine on a level surface.
- Use clean fuel only.
- If the drive coupling becomes noisy, check the drive coupling by removing top and bottom alternator mounting bolts, inspect the rubber spider for damage and replace if necessary.

REFER TO THE ENGINE MANUAL FOR FURTHER ENGINE MAINTENANCE PROCEDURES

WARNING:

When travelling to remote areas, it is always advisable to have two batteries, one of which can be isolated for starting your car, or truck.

Always remember, batteries can fail and this generator cannot re-charge an unserviceable battery.

BATTERY CARE:

Running any battery completely flat (i.e. any lower than 10.5 volts) can and will result in permanent battery failure, or decrease the life of the batteries.

Lead acid batteries must be kept fully charged. It is best to recharge a cranking battery each day when running electrical appliances, such as fridges, household appliances, radio equipment, or lighting from these batteries.

Cranking batteries will recharge very fast and are more suitable for some applications such as remote areas where batteries must be charged at a faster rate.

Some wet cell deep cycle batteries require a long time to recharge after being flattened and may require trickle charging over many days to recover.

Batteries can be damaged if discharged beyond 80% of their rated capacity, whether it is a deep cycle or cranking battery. A fully charged battery will have a voltage of approx. 12.6 volts and Specific Gravity reading of 1.260.

A battery that is flat (i.e. has only 20% of its capacity) will have a voltage of approx. 11.6 volts and Specific Gravity reading of 1.160.

Whenever you're handling or working with a lead-acid battery, consult your vehicle battery manual or specification sheets for instructions and safety precautions.

Lead-acid batteries contain hydrogen-oxygen gases that can be highly explosive, and sulphuric acid that can cause severe burns.

State of Charge	Specific Gravity	Voltage-12V Battery
100%	1.265	12.7
*75%	1.225	12.4
50%	1.190	12.2
25%	1.155	12.0
Discharged	1.120	11.9

*Sulfation of Batteries starts when specific gravity falls below 1.225 or voltage measures less than 12.4 (12volt Battery when stabilised).

Check electrical connections, Keep batteries topped up, Keep batteries clean and dry.

THIS GENERATOR SHOULD NOT BE RELIED ON FOR EMERGENCY SITUATIONS OR RUNNING MEDICAL EQUIPMENT