INSTRUCTION MANUAL

BATTERY CHARGER 230V

MODEL NUMBER

S0549

BEFORE USING THIS PRODUCT PLEASE READ THESE INSTRUCTIONS PAYING PARTICULAR ATTENTION TO SAFETY ADVICE AND WARNINGS. ONLY USE THIS PRODUCT AS INTENDED - DAMAGE/INJURY MAY RESULT FROM INCORRECT USE OR FAILURE TO COMPLY WITH THE INSTRUCTIONS AND AND OR WILL INVALIDATE THE WARRANTY.

1.1. ELECTRICAL SAFETY

❒ **WARNING! It is the user's responsibility to read, understand and comply with the following:**

You must check all electrical equipment and appliances to ensure they are safe before using. You must inspect power supply leads, plugs and all electrical connections for wear or damage. You must ensure the risk of electric shock is minimised by the installation of appropriate safety devices. An RCCB (Residual Current Circuit Breaker) should be incorporated in the main distribution board. We also recommend that an RCD (Residual Current Device) is used with all electrical products.

It is particularly important to use an RCD with portable products that are plugged into an electrical supply not protected by an RCCB.

If in doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your dealer. ***You must*** also read and understand the following instructions concerning electrical safety.

1.1.1. The ***Electricity At Work Act 1989*** requires all portable electrical appliances, if used on business premises, to be tested by a qualified electrician, at least once a year, using a Portable Appliance Tester (PAT).

1.1.2. The ***Health & Safety at Work Act 1974*** makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of appliance operators.

If in any doubt about electrical safety, contact a qualified electrician.

1.1.3. Ensure the insulation on all cables and the product itself is safe before connecting to the mains power supply.

See 1.1.1. & 1.1.2. above and use a Portable Appliance Tester (PAT).

1.1.4. Ensure that cables are always protected against short circuit and overload.

1.1.5. Regularly inspect power supply, leads and plugs for wear or damage and also power connections to ensure that none is loose.

1.1.6. ***Important:*** Ensure the voltage marked on the product is the same as the electrical power supply to be used and check that plugs are fitted with the correct capacity fuse. A 13 amp plug may require a fuse smaller than 13 amps for certain products - see fuse rating below.

1.1.7. DO NOT pull or carry appliance by power supply lead or output leads.

1.1.8. DO NOT pull power plugs from sockets by the power cable.

1.1.9. DO NOT use worn or damage leads, plugs or connections. Immediately replace or have repaired by a qualified electrician. Where a U.K. 3 pin plug with ASTA/BS approval is fitted, in case of damage, cut off and fit a new plug according to the following instructions (discard old plug safely). (UK only - see diagram below). ***Ensure the unit is correctly earthed via a three-pin plug.***

a) Connect the GREEN/YELLOW earth wire to the earth terminal 'E'.

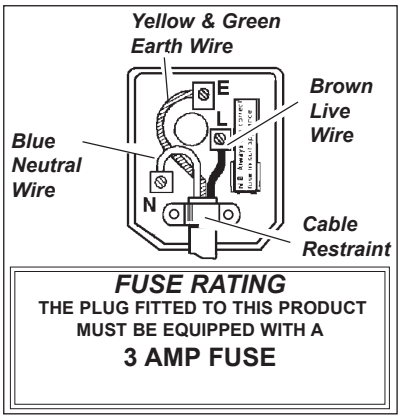
b) Connect the BROWN live wire to the live terminal 'L'.

c) Connect the BLUE neutral wire to the neutral terminal 'N'.

d) After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable external insulation extends beyond the cable restraint and that the restraint is tight.

Double insulated products are fitted with live (BROWN) and neutral (BLUE) wires only. Double insulated products are always marked with this symbol ⧈ .

To re-wire, connect the brown & blue wires as indicated above. DO NOT *connect the brown or blue wires to the earth terminal.*



FUSE RATING
THE PLUG FITTED TO THIS PRODUCT MUST BE EQUIPPED WITH A
3 AMP FUSE

1.1.10. **NOTE:** If this product requires more than a 13 amp electrical supply, then ***NO*** plug is fitted. ***You must*** therefore contact a qualified electrician to ensure that a 30 amp fused supply is available. We recommend you discuss the installation of a industrial round pin plug and socket with your electrician.

1.1.11. **Cable extension reels**. When a cable extension reel is used it should be fully unwound before connection. A cable reel with an RCD fitted is recommended since any product which is plugged into the cable reel will be protected. The section of the cores in the cable is important and should be at least 1.5mm^2, but to be absolutely sure that the capacity of the cable reel is suitable for this product and for others that may be used in the other output sockets, we recommend the use of 2.5mm^2 section.

DANGER! BE AWARE, LEAD-ACID BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS VERY IMPORTANT TO READ AND FOLLOW THESE INSTRUCTIONS CAREFULLY, EACH TIME YOU USE THE CHARGING EQUIPMENT.
Follow these instructions and those published by the battery and vehicle manufacturers, and the maker of any equipment you intend to use in the vicinity of the battery.
Remember to review warning marks on all products and on engines.

1.2. PERSONAL PRECAUTIONS

✓ Ensure there is another person within hearing range of your voice and close enough to come to your aid, should a problem arise when working near a lead-acid battery.

✓ Wear safety eye protection and protective clothing. Avoid touching eyes while working near battery.

✓ Have fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.

✓ Wash immediately with soap and water if battery acid contacts skin or clothing. If acid enters eye, flush eye immediately with cool, clean running water for at least 15 minutes and seek immediate medical attention.

✓ Remove personal metallic items such as rings, bracelets, necklaces and watches. A lead-acid battery can produce a short-circuit current which is high enough to weld a ring or the like to metal, which would cause severe burns.

✓ Ensure hands, clothing (especially belts) are clear of fan blades and other moving or hot parts of engine, remove ties and contain long hair.

✗ **DO NOT** smoke or allow a spark or flame in the vicinity of battery or engine.

1.3. GENERAL SAFETY INSTRUCTIONS

✓ Familiarise yourself with the application and limitations of the charger as well as the potential hazards. Also refer to the vehicle manufacturer's handbook.

If in any doubt consult a qualified service agent.

✓ Ensure the charger is in good order and condition before use. If in any doubt do not use the unit and contact a qualified service agent.

✓ Only use recommended attachments and parts. To use unapproved items may be dangerous and will invalidate your warranty.

✓ Use the charger in the upright position only and ensure it is placed on a stable surface which will adequately support its weight.

✓ Ensure the charger is disconnected from the mains supply before attaching or detaching the power clamps to/from the battery.

✓ Keep tools and other items away from the engine and ensure you can see the battery and working parts of engine clearly.

✓ Ensure the output voltage of the charger is the same voltage as the battery.

✓ If battery has caps to access the battery fluid, remove the caps and check the fluid level before connecting the power clamps. If necessary top-up the battery with distilled water by referring to the battery manufacturer's instructions. Apply the personal safety precautions described in part 1.2.

✓ If the charger receives a sharp knock or blow the unit must be checked by a qualified service agent before using.

✓ If the battery terminals are corroded or dirty clean them before attaching the power clamps.

✓ Keep children and unauthorised persons away from the working area.

✗ **DO NOT** disassemble the charger for any reason. The charger must only be checked by qualified service personnel.

✗ **DO NOT** try to charge a non-rechargeable battery.

✗ **DO NOT** try to start engine when charger is connected to battery.

✗ **DO NOT** try to charge battery if fluid is frozen.

❒ **WARNING!** *To prevent the risk of sparking, short circuit and possible explosion* ***DO NOT*** *drop metal tools in the battery area, or allow them to touch the battery terminals.*

✗ **DO NOT** allow power clamps to touch each other or to make contact with any metallic part of the vehicle.

✗ **DO NOT** cross-connect power leads from charger to battery. Ensure positive (+/RED) is to positive and negative (-/BLACK) is to negative.

✗ **DO NOT** pull the cables or clamps from the battery terminals.

✗ **DO NOT** use the charger outdoors, or in damp, or wet locations and **DO NOT** operate within the vicinity of flammable liquids or gases.

✗ **DO NOT** use charger inside vehicle or inside engine compartment.

✓ Ensure there is effective ventilation to prevent a build-up of explosive gases, and do not cover or obstruct charger ventilation louvres.

✗ **DO NOT** use the charger for a task for which it is not designed.

❒ **WARNING!** ***DO NOT*** *simultaneously charge batteries of different capacities or discharge levels.*

❒ **WARNING!** *If a fuse blows, ensure it is replaced with an identical fuse type and rating. Use only Sealey genuine parts.*

✓ When not in use, store the charger carefully in a safe, dry, childproof location.

Sole UK Distributor, The Siegen Tool Co, Bury St. Edmunds, Suffolk. **E-mail:** *sales@siegen.co.uk*

2 SPECIFICATION

Model No.	SO549
Output 6V Peak(EN).	3A(1.8A)
Output 12V Peak(EN).	6A(3.4A)
Input..	230V 0.3A
Fuse Rating.	10A
Fuse Reference	120/802255

Robust battery charger suitable for home and light workshop use. Features LEDs to indicate the level of battery charge. Float Charge and Full Charge options. Composite housing with in-built carry handle. External fuse protection for simple replacement. 1.3mtr cable complete with insulated clamps. Supplied with BS approved non-rewireable plug.

3 OPERATION

❒ **WARNING!** ***This charger is suitable only for lead Acid Batteries and should not be used to re-charge Ni-Cd or any other type of battery.***

x **DO NOT** *charge batteries smaller than 20Ah or greater than 120Ah.*

❒ **WARNING! Ensure you read, understand and apply the safety and operational instructions before connecting the charger power clamps to the battery. Only when you are sure that you understand the procedures is it safe to proceed with the actual charging process.**

3.1 BATTERY PREPARATION

Caution ! Ensure you wear appropriate personal protection including safety goggles as some electrolyte spillage may occur during the following procedure.

It is advised before charging, to remove the battery from the vehicle to prevent damage to sensitive on board equipment.

Caution ! Before removing or replacing your battery ensure you read the vehicle handbook and carefully follow the instructions relating to battery removal and fitting.

3.1.1 If the battery is not a sealed unit, remove the filler caps and check the level of the electrolyte. If it is below the recommended level, top up using distilled water. Do not use tap water under any circumstances.

3.1.2 To prevent acid splashing during the charging process, replace the filler caps but do not tighten them to allow gases to escape.

3.1.3 If the battery is a sealed unit it is unnecessary to carry out these checks.

3.2 CONNECTION

3.2.1 To avoid sparks which could cause an explosion, ensure the charger is disconnected from the mains supply before making or breaking connections.

3.2.2 Connect the crocodile clips to the battery in the following order:
a) Connect positive charging lead (RED) to the positive post of the battery (marked P or +).
b) Connect the negative lead (BLACK) to the negative post of the battery (market N or -). It is important that the crocodile clips make good contact with the battery terminals. If necessary use a small wire brush to clean the terminals.

3.2.3 The battery is fitted with an external, reverse polarity protection **10A** fuse. If the leads are incorrectly connected the fuse will blow. If this situation should occur, disconnect the charger from the mains and replace the fuse located on the right hand side of the charger with another of the same value,
part ref: 120/802255.

DO NOT fit a fuse of any other value.

3.3 CHARGING

Set the charger to 6 or 12V

3.3.1 Ensure the voltage matches that of the battery (6 - 12V).

3.3.2 Plug the charger into the mains supply (230V AC only).

3.3.3 Switch on supply to commence the charging procedure.

3.3.4 The rate of charge will now be displayed on the panel of LEDs on the front of the charger.
The smaller the number of LEDs illuminated the higher the current flowing into the battery. As the battery charges, less current will be drawn and more LEDs will be lit. When the battery is fully charged all LEDs will be lit.
When a flat battery is initially connected to the charger, the charging rate should build up quickly. As the battery becomes more charged the rate of charge will drop, this is normal.

❒ **WARNING! Do not attempt to start the vehicle whilst connected to the charger as this will damage the unit.**

3.3.5 Regularly check the specific gravity of the electrolyte using a hydrometer, until a reading of fully charged is reached.
A charging time of no more than 10 hours is recommended for batteries of 34 to 45 Ah capacity.

3.3.6 When charging is complete, switch of the mains supply. unplug the charger and disconnect the leads from the battery. Inspect the electrolyte levels in each of the battery cells and top up if necessary using distilled water. Replace the filler caps ensuring they are fully
tightened or pushed home. Any surplus fluid on the surface of the battery should be wiped off (this should be done with . . extreme care as it may be acidic).

4 FAULTS

Fault	Action	Remedy
• Panel lights fail to light.	• Switch **OFF** immediately at the mains.	• Ensure the output leads are not damaged. • Ensure the crocodile clips are making good contact with the battery posts, switch on the mains and check again.

Fault	Action	Remedy
• Panel lights flicker and go out.	• Switch **OFF** immediately at the mains.	• Ensure the output leads are not touching. • Ensure the polarity is correct (RED lead to + battery terminal, BLACK lead to - negative terminal and check external fuse. When satisfied all is correct switch on the mains and check again.

❒ **WARNING! DO NOT use the charger if damaged or thought to be faulty (Contact Service Agent).**

When not in use, disconnect from the mains supply and store the charger carefully in a safe, dry, childproof location.

Declaration of Conformity We, the sole UK importer, declare that these products listed below are in conformity with the following standards and directives.

CE The construction files for these products are held by the Manufacturer and may be inspected, by a national authority, upon request to The Siegen Tool Co.

Electronic Battery Chargers 230V
Models: S0549
2004/108/EC EMC Directive
2006/95/EC Low Voltage Directive
93/68/EEC CE Marking Directive

Signed by Mark Sweetman

30th November 2008

NOTE: *It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.*

IMPORTANT: No liability is accepted for incorrect use of this equipment. **WARRANTY:** Guarantee 12 months from purchase date, proof of which will be required for any claim.

Sole UK Distributor, The Siegen Tool Co., Bury St. Edmunds, Suffolk **E-mail:** *sales@siegen.co.uk*