

SUPERBOOST 140.V2	SUPERBOOST 160.V2	SUPERBOOST 180.V2	SUPERBOOST 200.V2
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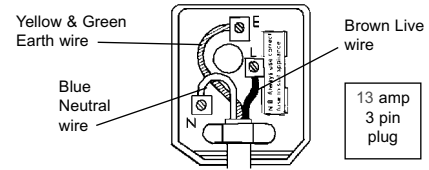
Thank you for purchasing a Sealey product. Manufactured to a high standard this product will give you years of trouble free performance if these instructions are carefully followed and the product is correctly maintained.

⚠ IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THIS PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE OR PERSONAL INJURY, AND WILL INVALIDATE THE WARRANTY. PLEASE RETAIN THESE INSTRUCTIONS FOR FUTURE USE.

1. SAFETY INSTRUCTIONS

- 1.1. IMPORTANT:** Small battery chargers are supplied with plugs fitted. Boost chargers and start chargers however can draw more than 13 Amps from the mains supply when used on start circuit whilst cranking large engines. For this reason therefore boost chargers are not supplied with plugs fitted. We recommend that for maximum performance your boost charger is plugged into a 30Amp electrical supply, and further recommend that you consult an electrician in order to fit an appropriate plug. The following statement on electrical safety must also be read and understood when using such equipment.
- 1.2 ELECTRICAL SAFETY. ⚠ WARNING! It is the user's responsibility to check 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 and 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 recommend that an RCD (Residual Current Device) is used with all electrical products. It is particularly important to use an RCD together with portable products that are plugged into an electrical supply not protected by an RCCB. If in doubt consult a professional electrician. You may obtain a Residual Current Device by contacting your Sealey dealer. You must also read and understand the following instructions concerning electrical safety.
- 1.2.1.** The Electricity At Work Act 1989 requires all portable electrical appliances, if used on a business premises, to be tested by a qualified person at least once a year by using a Portable Appliance Tester (PAT).
- 1.2.2.** The Health & Safety at Work Act 1974 makes owners of electrical appliances responsible for the safe condition of the appliance, and the safety of the appliance operator. If in any doubt about electrical safety, contact a qualified electrician.
- 1.2.3.** DO ensure the insulation on all cables and the product itself is safe before connecting to the mains power supply. See 1.2.1. above and use a Portable Appliance Tester (PAT).
- 1.2.4.** DO ensure that cables are always protected against short circuit and overload.
- 1.2.5.** DO regularly inspect power supply, leads, plugs and all electrical connections for wear and damage, especially power connections to ensure that none are loose.
- 1.2.6.** DO check that the voltage marked on the product is the same as the electrical power supply to be used, and check that all fused plugs are fitted with the correct capacity fuse.
- 1.2.7.** DO NOT pull or carry the powered appliance by its power supply lead. Products must not be pulled or carried by their output cables.
- 1.2.8.** DO NOT pull power plugs from sockets by the power cable.
- 1.2.9.** DO NOT use worn or damage leads, plugs or connections. Immediately replace or repair by qualified persons. 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 (UK only - see diagram at right).
- 1.2.10.** Subject to 1.1. above, the following instruction is for fitting a 13Amp plug since this will be adequate for use when charging and when starting engines in small vehicles drawing less than 13 Amps from the mains. No responsibility is accepted in the event that the product is misused and/or used with a 13Amp plug when a 30Amp supply is required.

- a) Ensure the unit is correctly earthed via a three-pin plug.
- b) Connect the green/yellow earth wire to the earth terminal 'E'.
- c) Connect the brown live wire to live terminal 'L'.
- d) Connect the blue neutral wire to the neutral terminal 'N'.



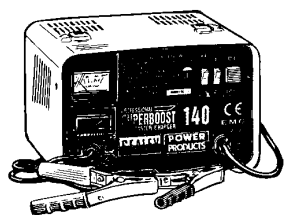
1.3. GENERAL SAFETY

- WARNING!** Disconnect the charger from the mains power before servicing or performing any maintenance.
- Disconnect the charger from the mains power before connecting to, or disconnecting from the battery.
- Maintain the charger in good condition (use an authorised service agent only).
- WARNING!** charger has components such as switches and relays which may cause sparks or arcs. When using the charger in a garage or workshop, make sure it is in a safe location.
- Keep the charger clean for best and safest performance.
- WARNING!** Ensure there are no sources of flammable ignition near the work area i.e. naked flames, cigarettes, flame heaters etc as the charging process produces explosive gases.
- WARNING!** ensure the working area is well ventilated as the gases produced are flammable and harmful if inhaled.
- Locate the charger in an adequate working area for its function, keep area clean and tidy and free from unrelated materials, and ensure there is adequate lighting.
- Wear approved safety eye protection (standard spectacles are not adequate).
- Remove ill fitting clothing. Remove ties, watches, rings, and other loose jewellery, and contain long hair.
- Read vehicle manufacturer's instructions manual to check for any specific battery charging information.
- Disconnect the battery from the vehicle and move it to a safe, dry level area for charging. If the battery can not be removed from the vehicle refer to manufacturer's hand book.
- Check the electrolyte fluid level in the battery is above the plates inside. If not add distilled water to cover them by 5 - 10mm.. DO NOT touch the battery fluid as it is corrosive.
- Clean the charger clamps removing any oxidation before attaching to the battery to ensure a good contact.
- Ensure the correct clamp polarity is attached to the correct terminal of the battery. POSITIVE is indicated by (+) and may be Red. NEGATIVE is indicated by (-) and may be black. If there are no identifiable symbols, you can distinguish the NEGATIVE battery terminal as the one which is connected from the battery directly to the vehicle body.
- Remove the battery electrolyte cover or caps to allow the gases produced by charging to escape.
- Keep children and unauthorised persons away from the working area.
- DO NOT attempt to charge a non-re-chargeable battery.
- DO NOT use the charger for any purpose other than for which it is designed.
- DO NOT allow untrained persons to operate the charger.
- DO NOT allow the charger terminal clamps to touch each other when the power is on or the charger fuse will blow. Remember that gases are produced which may ignite if sparks occur.
- DO NOT place the charger inside the vehicle. Remove the battery to a safe distance for charging.
- DO NOT get the charger wet or use in damp or wet locations or areas where there is condensation.
- DO NOT operate the charger if damaged.
- DO NOT attempt to modify or open the charger.
- When not in use unplug from the mains power supply and store in a safe, dry, child proof area.
- WARNING!** be vigilant and cautious during the operation of battery charging as the electrolyte is highly corrosive and emissions of gases are flammable and harmful to health.



2. SPECIFICATIONS

SUPERBOOST MODEL NO:	140.V2	160.V2	180.V2	200.V2
Amps output charge peak	21Amps	40Amps	40Amps	45Amps
Amps output start peak	140Amps	160Amps	180Amps	200Amps
Amps input charge	2.5A	2.5A	4.5A	4.5A
Amps input start	4.5.A	10A	15A	19A
Volts output	12V	12V/24V	12V/24V	12V/24V
Fuse ref no & pieces	120/802309 20pcs	120/802260 20pcs	120/802260 20pcs	120/802259 20pcs



3. CHARGING INSTRUCTIONS

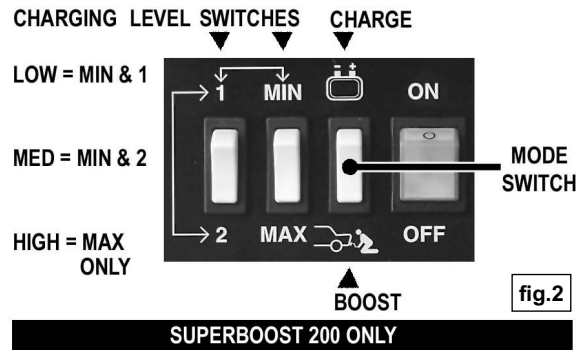
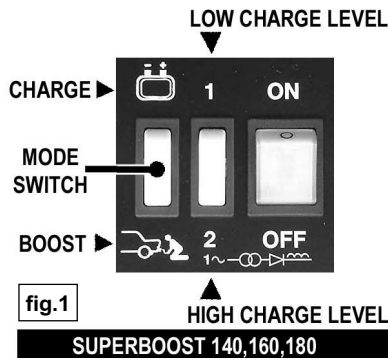
- 3.1. Preparation**
It is important to correctly prepare for charging ensuring you follow chapter 1 safety regulations carefully. Check that the capacity of the battery is compatible with charger output.
- 3.1.1.** Follow any vehicle manufacturer's instructions regarding the charging of a battery. Note special instructions for the charging of non removable vehicle batteries.
- 3.1.2.** Check the battery to ensure that the NEGATIVE & POSITIVE terminals are clearly identifiable before removing the battery from the vehicle.
- 3.1.3.** Subject to 3.1.1. above, disconnect and remove the battery from the vehicle and place in an appropriate safe area according to chapter 1 ready for charging.
- 3.1.4.** Remove the battery electrolyte cover or caps to allow the gases produced by charging to escape.

- 3.1.5. Check that the electrolyte is covering the plates inside. If not add distilled water so that the plates are covered to 5-10mm.
 3.1.6. The correct charging status of the battery may be determined by use of a hydrometer which will measure the specific density of the electrolyte. The following information indicates kgs/L at 20C as a reference point: **1.28 = Fully charged 1.21 = Half charged 1.14 = Fully discharged** .



⚠ WARNING! be cautious and vigilant as the electrolyte is a highly corrosive acid.

- 3.2. Connecting the charger to the battery.** Ensure the battery charger is unplugged from the mains power supply before connecting power leads to the battery.
 3.2.1. For chargers with dual voltage output set the charger voltage to match that of the battery voltage (i.e. 12 or 24 Volts) by connecting the positive (red) clamp lead to either the 12volt output terminal or the 24volt output terminal as appropriate.
 3.2.2. Set the mode switch to "charge", indicated by the battery symbol.
 3.2.3. Set the rate of charge to that required by using the charge level switches as shown in fig.1 or fig.2. (Please note that on the Superboost 200 the MIN & MAX switch relates to charge levels only. When the charge level is set to MAX the switch marked 1 & 2 is over-riden.)
 3.2.4. Check the charger clamps and battery terminals to ensure they are clean and free from oxidation.
 3.2.5. Connect the chargers POSITIVE (Red or +) lead to the POSITIVE (+) terminal on the battery, and the NEGATIVE (Black or -) lead to the NEGATIVE (-) terminal on the battery.



- 3.3. Charging the battery.** Connect the charger to the mains power supply and switch the charger on.
 3.3.1. Check the current delivery to the battery by reading the "ammeter" on the front of the battery charger. During the charge the pointer on the ammeter will slowly decrease (move to the left) according to the capacity and condition of the battery (See fig 3, dial face may vary according to model of charger).
 3.3.2. To indicate that the battery is fully charged the reading on the ammeter should be at the "0" output indicator. To correspond with this the electrolyte in the battery will begin to boil. Stop charging at this point in order to protect the battery plates from oxidation and keep the battery in good condition.
 3.3.3. Switch the charger off and unplug from the mains power supply. Disconnect the power clamps, clean and store the charger in a safe, dry area.
 3.3.4. Replace the battery electrolyte cover or caps. Wipe up any splashes or spillage (remember the electrolyte is a corrosive acid). Return the battery to the vehicle and secure according to the manufacturer's instructions, and re-connect the power leads. Check to ensure all tools and non related items are removed before closing the bonnet or boot.

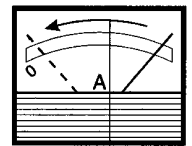


fig.3

3.4. ⚠ WARNING! LOW or SEALED "NO MAINTENANCE" BATTERY CHARGING

- 3.4.1. Should you need to charge a low, or no maintenance battery take very special care to ensure you use only a "LOW" slow charge. Use a battery tester to continually check the voltage input where the clamps are attached to the battery. When the input reaches 14.4Volts stop the charging process.

4. FAST START INSTRUCTIONS

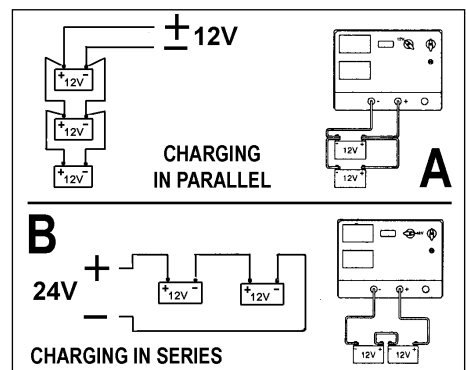
The Superboost range of chargers (see chapter 2) are combination units capable of both charging batteries and providing boost power to start vehicles with flat batteries. To charge a battery under normal circumstances refer to chapter 3. To start a vehicle which has a flat battery follow steps below.

- 4.1.1. Check the vehicle manufacturer's hand book and follow any special instructions, and check that the battery is in good condition.
 4.1.2. Ensure the charger is disconnected from the mains power supply and set the mode switch (fig.1 or 2) to "charge", indicated by the battery symbol.
 4.1.3. For chargers with dual voltage output set the charger voltage to match that of the battery voltage (i.e. 12 or 24 Volts) by connecting the positive (red) clamp lead to either the 12volt output terminal or the 24volt output terminal as appropriate.
 4.1.4. Check the charger clamps and battery terminals to ensure they are clean and free from oxidation.
 4.1.5. Without removing the power leads that connect the battery to the vehicle, connect the Superboost POSITIVE (red) lead to the POSITIVE (+) terminal on battery, and the NEGATIVE (black) lead to NEGATIVE (-) terminal on the battery.
 4.1.6. Plug charger into mains power supply and turn the charger on. Allow the battery to charge for 2-3 minutes.
 4.1.7. When the quick charge has been completed, change the mode switch from "charge" to "boost" (see figs 1 or 2).
 4.1.8. Turn on the vehicle ignition and crank the engine for a MAXIMUM of 10 seconds.
 ⚠ WARNING! if the vehicle does not start within this time DO NOT continue as vehicle battery and electrical circuit may be damaged, and the fuse in the charger will blow . Should the vehicle fail to start, disconnect the charger and investigate for possible failure.
 4.1.9. When the vehicle is running successfully, switch the Superboost off, unplug from the mains power and disconnect the power terminals from the battery.

fig.4

5. SIMULTANEOUS CHARGING

- 5.1 A number of batteries may be charged at the same time. To do so we recommend the use of a "parallel connection" as shown in fig.4A
 5.2 Two 12 volt batteries may be charged simultaneously in series using a 24volt output as shown in fig.4B. This is only recommended if both batteries are in a similar state of discharge.



6. SAFETY CUT OUT

Your charger is equipped with a safety cut out protection which will cut the units power in the following circumstances:

- a) Overload: too high a current to the battery.
 b) Short circuit: clamps touch, or the polarity on battery is reversed.
 c) Prolonged starting attempts.
 Should the fuse blow take the following action:
 6.1. Turn the unit off and disconnect from the mains power supply.
 6.2. Allow the unit to cool down, establish the reason for failure and correct the situation.
 6.3. Replace the fuse (for boosters remove small panel at rear of charger). Use only Sealey replacement parts. DO NOT use a fuse with copper bridges or similar as these will damage your equipment.
 Refer to chapter 2 for fuse information and part numbers.

Declaration of Conformity We, the sole importer into the UK, declare that the products listed here are in conformity with the following EEC standards and directives

Superboost Battery chargers
Models 140.V2, 160.V2, 180.V2, 200.V2
 73.23/EEC
 Low Voltage Directive (S.I. 1994/3260)



The construction file for these products is held by the Manufacturer and may be inspected on request by contacting Jack Sealey Ltd

Mark Sweetman



Date 12th June 2002

For Jack Sealey Ltd.
 Sole importer into the UK
 of Sealey Power Products

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 responsibility is accepted for incorrect use of this product. **WARRANTY:** Guarantee is 12 months from purchase date. Proof of purchase will be required for any claim.

INFORMATION: Please call us for a copy of our latest catalogue



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