SEALEY POWER PRODUCTS

Instructions for:

ROADSTART UNITS

Model No's: **RS103, RS104, RS105**

Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.

IMPORTANT: **BEFORE USING THIS PRODUCT, PLEASE READ THE INSTRUCTIONS CAREFULLY. MAKE CAREFUL NOTE OF SAFETY INSTRUCTIONS, WARNINGS AND CAUTIONS. THIS PRODUCT SHOULD ONLY BE USED FOR ITS INTENDED PURPOSE. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. RETAIN THESE INSTRUCTIONS FOR FUTURE USE.**

1. SAFETY INSTRUCTIONS

❒ **WARNING! RISK OF EXPLOSIVE GASES.** Working in the vicinity of a lead acid battery is dangerous because they can generate explosive gases. It is important to remember that batteries generate explosive gases during normal operation.

❒ **WARNING!** This equipment contains a sealed, non-spillable lead acid battery. This must be disposed of in accordance with local regulations.

IMPORTANT INFORMATION TO HELP KEEP YOUR ROADSTART HEALTHY

Read and understand the general safety and operating instructions before use.
The following information is intended to help you keep the product in top working order.

NOTE – The battery in this unit is a consumable item and will degrade over time. The battery is not covered by warranty. You can help prolong the lifecycle of the battery by following a few simple guidelines.

- Plug in your new Roadstart to the mains transformer and make an **INITIAL** charge lasting 72 hours.
- Ensure the unit is fully charged before storage.
- **Do Not** leave the Roadstart for longer than 2 months without putting it on charge.
- **Do Not** attempt to start a vehicle when the Roadstart battery voltage is reduced to less than 7Volts.
- **Do Not** drop or roughly handle the Roadstart – this will break or disjoin the battery terminals rendering the battery useless and the warranty void.
- **Do Not** use any other charger, other than the one supplied, to recharge the battery.

IMPORTANT: To reduce the risk of a battery explosion, follow these instructions and those published by the battery manufacturer and the manufacturer of any equipment you intend to use in the vicinity of the battery. Remember to review warning marks on all products and on engines.

1.1. PERSONAL PRECAUTIONS

✓ Ensure there is another person within hearing range, or close enough to come to your aid should a problem arise, when working near a lead-acid battery.
✓ Have fresh water and soap nearby in case battery acid contacts skin, clothing or eyes.
✓ Wear safety eye protection and protective clothing. Avoid touching eyes while working with a battery.
✓ 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 high enough to weld a ring or the like to metal, which may cause severe burns.

1.2. IMPORTANT SAFETY INSTRUCTIONS

✓ Familiarise yourself with the applications, limitations and potential hazards of the RoadStart.
✓ Keep the unit in good working order and condition. Replace damaged parts immediately.
✓ Use only recommended parts. To use unapproved parts may be dangerous and will invalidate your warranty.
✓ The RoadStart must only be opened and checked by qualified service personnel. **DO NOT** disassemble the unit for any reason.
✓ Keep children and unauthorised persons away from the work area.
✓ Keep work area clean and tidy and free from unrelated materials. Ensure that there is adequate lighting.
✓ If the RoadStart receives a sharp knock or blow, it must be checked by a qualified service agent before being used.
✓ When not in use re-charge every two months.
✗ **DO NOT** smoke or allow a spark, or flame in the vicinity of the battery or engine.
✗ **DO NOT** drop any metal item onto the battery as it may spark or short circuit the battery, which could cause an explosion.
✗ **DO NOT** use RoadStart to recharge dry cell batteries that are commonly used with home appliances. These batteries may explode and cause personal injury and damage to property.
✗ **DO NOT** charge or boost a frozen battery.
✗ **DO NOT** use attachments other than those recommended. To do so may risk damage to the unit and other equipment and possible personal injury.
✗ **DO NOT** pull or carry the unit by its cables and do not pull the negative and positive clamps from the battery terminals.
✗ **DO NOT** operate in vicinity of flammable liquids or gases.
✗ **DO NOT** recharge the unit with plugs, cables or attachments that are damaged. Replace such items immediately.
✗ **DO NOT** use this product to perform a task for which it is not designed.
✗ **DO NOT** store the unit in damp or wet locations or where the temperature may exceed 50°C.
✗ **DO NOT** submerge the unit in water.
✗ **DO NOT** use whilst under the influence of drugs, alcohol or intoxicating medication.
✗ **DO NOT** leave the unit in a totally discharged state for an extended period of time as this may result in permanent damage.
✗ **DO NOT** cross-connect the power leads from the RoadStart to the battery. Ensure that positive is to positive and negative is to negative.
✓ Ensure that the unit is fully charged before storage.

1.3. ELECTRICAL SAFETY (with respect to mains chargers)

❒ **WARNING!** It is the user's responsibility to check the following:

You must check the AC adaptor to ensure that it is safe before using. **You must** inspect the power supply lead, 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 with portable products that plug into an electrical supply not protected by an RCCB. If in doubt consult a qualified electrician. You can obtain a Residual Current Device through your Sealey dealer. **You must** read and understand instructions concerning electrical safety.

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

1.3.2. 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.

1.3.3. **DO** ensure that the insulation on all cables and the product itself is safe before connecting to the mains power supply.

1.3.4. **DO** ensure that cables are always protected against short circuit and overload.

1.3.5. **DO** regularly inspect power supply, leads, plugs for wear and damage and power connections to ensure that none is loose.

1.3.6. **DO** check product voltage is the same as power supply to be used and check that all fused plugs are fitted with the correct capacity fuses.

2. INTRODUCTION AND SPECIFICATION

2.1 Introduction

The RoadStart Emergency Power Pack is contained in a composite case with integral battery clip storage and carrying handle. Twin batteries, connected in either parallel or series to suit the output voltage, provide high peak and cranking currents. Battery condition is displayed via a multiple LED power indicator.
A test button gives an indication of battery condition. The power pack is fitted with a 12 volt power socket that will accept any 12 volt device with a cigarette lighter plug. A mains charger and double plug cable for in-car charging are also supplied.

Refer to Fig. 1 (12V Model RS103), Fig. 2 (24V Model RS104) and Fig. 3 (12/24V Model RS105).

2.2 Specification

Models	**RS103**	**RS104**	**RS105**
Cold Cranking amps	1000A	500A	1000/500A
Peak Amps	3200A	1600A	3200/1600A
Voltage	12V	24V	12/24V
Auxiliary Output	12V	12V	12V
Cable and Clamp Length	1.8mtr.	1.8mtr.	1.8mtr.
Weight	16.9kg	17.2kg	17.5kg

Fig. 1.

Fig. 2.

3. CHARGING INSTRUCTIONS

3.1 Initial Charging Procedure

3.1.1 When first used, the roadstart unit should be charged for a minimum of 72 hours, unless all the power level lights and the green charged light come on when the test button is pressed.

3.2 Recharging Using the Mains Adaptor

IMPORTANT: When recharging the 12V/24V version (RS105), the VOLTAGE switch must be set at the 12V position and the 12V mains adaptor used. Refer to Fig. 4. When recharging the 24V version (RS104) a 24V rated mains adaptor is to be used. Refer to Fig. 5.

3.2.1 The first method of charging the power pack is using the mains adaptor.
The adaptor charging jack is inserted into the charge port, located beneath the LED power indicators. The charge port is connected through a smart circuit card to the battery, making recharging automatic. Refer to Fig. 6.

3.2.2 The yellow charging indicator, located at the bottom of the bank of battery power level LEDs, will light.

3.2.3 Charging progress can be monitored by checking the three red power level LEDs, located directly above the yellow charging indicator. When all three LEDs are lit, the green charged LED, located at the top of the three red power level LEDs, will light.

3.2.4 Recharging time is approximately four to six hours for each light that does not come on when the test button is pressed.

3.2.5 When the green charged LED lights, charge the battery for another three to six hours. Three hours is acceptable, but charging for six hours ensures maximum battery output.

3.2.6 When not in use, the unit can be left connected to the mains adaptor.

3.3 Recharging Using the Vehicle Charger.

3.3.1 Start the vehicle engine.

3.3.2 Plug one end of the power extension lead into the unit and the other end into the vehicle cigarette lighter outlet.

3.3.3 Depress the test button once every hour to check the power level.

3.3.4 When all the red LEDs and the green charged LED light, charge the unit for a further one to two hours, to ensure a complete recharge.

❒ **WARNING! DO NOT OVERCHARGE**

3.3.5 The Vehicle Charging method is not an automatic charging method. Frequent monitoring of the charging process is the only safe way of ensuring the unit is not overcharged.

Fig. 3.

Fig. 6.

Fig. 5.

Fig. 4.

4. OPERATION

4.1 Battery Charging

NOTE: Some vehicle ignition systems must be turned to ***"Accessory"*** to activate the cigarette lighter socket. A defective battery may not accept a charge from the portable power source.

4.1.1 Plug one end of the charging lead into the RoadStart unit.
4.1.2 Plug the other end into the vehicle cigarette lighter socket.
4.1.3 Allow the battery to charge for thirty minutes.
4.1.4 Remove the power extension lead and start the vehicle.

4.2 Emergency Jump Starter

IMPORTANT: The unit will only jump start a battery if the battery voltage is greater than 7V. If the battery is delivering less than 7V, refer to Section 4.1 and follow the instructions to recharge the battery.

NOTE: For optimum performance, the unit should not be stored below 10°C when using the unit as a jump starter.

4.2.1 Turn off the vehicle ignition.
4.2.2 Attach the RED (positive +) clamp to the positive terminal of the battery.
4.2.3 Attach the BLACK (negative -) clamp to the vehicle chassis.
4.2.4 Ensure that all cables are clear of moving belts and rotating fans.
4.2.5 Maintain a safe distance from the battery whilst jump starting.
4.2.6 Turn on the ignition to start the vehicle.

NOTE: If the vehicle does not start after 6 seconds, allow the RoadStart unit to cool for 3 minutes, before attempting to jump start the vehicle again. If this is not done, the unit could sustain damage.

4.2.7 When the vehicle has started, disconnect the BLACK (negative -) clamp from the vehicle chassis.
4.2.8 Remove the RED (positive +) clamp from the battery terminal.
4.2.9 Return the clamps to the side storage pockets.

4.3 Alternative Vehicle Power Supply

4.3.1 When a vehicle battery is disconnected, the memory systems in radios, electronic ignition systems and alarms are frequently lost.
4.3.2 When replacing a battery the RoadStart unit can be used as an alternative power supply by connecting the unit dc extension lead into the cigarette lighter socket.
4.3.3 This will prevent loss of memory in the systems outlined in Paragraph 4.3.1.

❒ **WARNING!** The positive battery cable will be live and MUST be insulated (e.g. in a plastic bag).

4.4 Multipurpose Power Supply

4.4.1 The RoadStart unit can be used as a multipurpose power supply to power up any equipment with a built-in 12Vdc male adaptor.
4.4.2 The dc outlet on the roadstart unit is equipped with overload protection.
4.4.3 Used with an inverter, the RoadStart unit can operate equipment usually powered by either 110VAC or 230VAC.

NOTE: The inverter power draw must not exceed 300 Watts.

4.5 RoadStart Battery Test

4.5.1 Fully charge the roadstart unit battery so that all RED LEDs light.
4.5.2 Connect a 100A battery load tester across the RoadStart unit battery.
4.5.3 The load tester voltmeter should read 9V or higher for a period of 6 seconds.
4.5.4 Disconnect the battery load tester.

5. BATTERY REMOVAL AND DISPOSAL

5.1 Removal

NOTE: The RoadStart battery is a sealed, lead-acid type. By law, it must be removed and recycled, or disposed of properly, according to national and/or local regulations.

5.1.1 Place the RoadStart unit front side down.
5.1.2 Remove the 4 screws and lift off the back half of the unit enclosure.
5.1.3 Disconnect the wires from the two battery terminals, taking care to avoid accidental arcing of the terminals.
5.1.4 Lift the batteries out of the front half of the enclosures.

5.2 Disposal

5.2.1 Take the battery to a recycling centre that handles sealed, lead-acid batteries.
5.2.2 If there is no recycling centre in the area, contact the local environmental agency for disposal instructions.

6. TROUBLESHOOTING

THE PROBLEM	THE SOLUTION
Unit works well but no change in light status when the adaptor is connected to the RoadStart unit.	Possible defective battery or faulty breaker. Use a device such as a light with a dc plug to check that it works. If the light works, the power source breaker is serviceable and the battery is defective.
When the adaptor is plugged into the roadstart unit all LEDs light. When the adaptor is unplugged and the test button depressed, no LEDs light.	Roadstart unit battery defective which could have been caused by intense use without a cool-down period.
Roadstart unit is fully charged but delivers no power.	Check where the wires meets the jaw on the unit clamps. Ensure they are well crimped. If the unit has a power switch, ensure that it is in the ON position.
When trying to use an accessory via the dc outlet, a clicking sound is heard inside the RoadStart unit.	The accessory is drawing too much current, resulting in the internal circuit breaker switching between ON and OFF.

7. QUESTIONS & ANSWERS

QUESTION	ANSWER
How many jump starts can a fully charged RoadStart do before needing to be recharged?	Between 1 and 20 depending upon operating factors such as temperature, general condition of the vehicle, engine type and size.
Can the RoadStart be recycled?	Yes, in accordance with national and local authority regulations.
What is the ideal in-use storage temperature of the RoadStart?	Room temperature. The RoadStart will also operate at temperatures below zero, its power however will be lessened. Intense heat will activate self-discharge.
I have a regular 10 amp battery charger, can I use it to recharge the RoadStart?	No. Only the supplied adaptor and charger can be used.
Is the RoadStart fool proof?	No. All jump starting instructions must be followed carefully.
Can I replace the internal batteries?	Yes, but note that the batteries are not covered by warranty as they are consumable items.

8. DECLARATION OF CONFORMITY

Declaration of Conformity We, the sole importer into the UK, declare that the product listed below is in conformity with the following standards and directives.

Roadstart Unit Model No's. R103, R104, R105

2006/95/EC Low Voltage Directive
2004/108/EC EMC Directive
93/68/EEC CE Marking Directive

CE

The construction file for this product is held by the Manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.

Signed by Mark Sweetman  24th October 2008

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 liability is accepted for incorrect use of product.
WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim.
INFORMATION: For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.

SEALEY POWER PRODUCTS

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