

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. FEATURES

1.1. GENERAL FEATURES

- ✓ 1600 amps initial peak power for starting. May also be used in DEEP CYCLE applications.
- ✓ The Roadstart is also a portable power source for 24V DC accessories equipped with a male cigarette lighter plug. The DC outlets have 10 amp fuse protection.
- ✓ Test switch and LEDs.

1.2. SAFETY FEATURES

- ✓ Clamp storage holsters prevent accidental sparking of clamps.
- ✓ The Roadstart contains the latest technology - 24 volt output from two 12 volt sealed gel batteries. This means the Roadstart RS22 may be stored in any position without fear of leakage.

IMPORTANT: READ SAFETY INSTRUCTIONS BEFORE ATTEMPTING TO USE THE ROADSTART.

2. SPECIFICATION

Built-in Batteries 2 x 12V 17Ah sealed gel, maintenance free, re-chargeable.
DC Output 2 x 24 volts.
Boost Rate 1600 amps (peak)
Cold Cranking Current	. . . 600 amps
Charging Time 20 - 22 hours with AC charging adaptor & 6 - 8 hours with DC charging cable.
Fuse 10 amp (for 24 volt DC power sockets).
Weight 14.5kg.
Dimensions 360 x 380 x 160mm.



3. SAFETY INSTRUCTIONS

DANGER! - RISK OF EXPLOSIVE GASES.

WORKING IN THE VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS VERY IMPORTANT TO READ AND FOLLOW EXACTLY THESE INSTRUCTIONS, EACH TIME YOU USE THE RS22.

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.

3.1. 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 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.

3.2. OTHER IMPORTANT RS22 SAFETY INSTRUCTIONS

- ✓ Familiarise yourself with the applications, limitations and potential hazards of the Roadstart.
- ✓ Keep the unit in good working order and condition (take immediate action to repair or replace damaged parts).
- ✓ 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 dis-assemble the RS22 for any reason.
- ✓ Keep children and unauthorised persons away from the work area.
- ✓ Keep work area clean and tidy and free from unrelated materials and ensure that there is adequate lighting.
- ✓ If the RS22 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 six months.
- x **DO NOT** smoke or allow a spark, or flame in the vicinity of the battery or engine.
- x **DO NOT** drop any metal tool onto the battery as it may spark or short circuit the battery, which could cause an explosion.
- x **DO NOT** use RS22 to recharge dry cell batteries that are commonly used with home appliances. These batteries may burst and cause injury to persons and/or damage to property.
- x **DO NOT** charge or boost a frozen battery.
- x **DO NOT** recharge the unit for more than 36 hours continuously.
- x **DO NOT** allow clamps to touch each other, or to contact the same piece of metal, as this will result in arcing.

- x **DO NOT** use attachments other than those recommended. To do so may risk damage to the unit and other equipment and possible personal injury.
- x **DO NOT** pull or carry the RS22 by its cables and do not pull the negative and positive clamps from the battery terminals.
- x **DO NOT** operate in vicinity of flammable liquids or gases.
- x **DO NOT** recharge the RS22 with plugs, cables or attachments that are damaged. Replace such items immediately.
- x **DO NOT** use this product to perform a task for which it is not designed.
- x **DO NOT** store the unit in damp or wet locations or where temperature may exceed 50°C.
- x **DO NOT** submerge the unit in water.
- x **DO NOT** use whilst under the influence of drugs, alcohol or intoxicating medication.
- x **DO NOT** leave the RS22 in a totally discharged state for an extended period of time as this may result in permanent damage to the unit.
- x **DO NOT** cross-connect the power leads from the Roadstart to the battery. Ensure positive is to positive and negative is to negative.
- ✓ Ensure the unit is fully charged before storage.

3.3. ELECTRICAL SAFETY

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



You must check the AC adaptor to ensure 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. Obtain a Residual Current Device through your Sealey dealer. **You must** read and understand instructions concerning electrical safety.

- 3.3.1. 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.
- 3.3.2. 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.
- 3.3.3. **DO** ensure that the insulation on all cables and the product itself is safe before connecting to the mains power supply.
- 3.3.4. **DO** ensure that cables are always protected against short circuit and overload.
- 3.3.5. **DO** regularly inspect power supply, leads, plugs for wear and damage and power connections to ensure that none is loose.
- 3.3.6. **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.
- 3.3.7. **DO NOT** pull the AC adaptor plug from the mains socket by the cable.
- 3.3.8. **DO NOT** use the AC adaptor if damaged or if the lead is worn. Replace damaged items immediately.
- 3.3.9. **DO NOT** disassemble the AC adaptor. There are no user-serviceable items inside the unit.

4. CHARGING INSTRUCTIONS



WARNING! YOU MUST FOLLOW SAFETY INSTRUCTIONS

4.1. Reading the LED charge indicators

To the right of the charge indicator LEDs is a rocker switch behind a flexible protective cover. To determine the charge level depress the rocker switch and note the number of LEDs illuminated. Release the switch which will automatically return to the 'Off' position.

If only one or two LEDs illuminate then the unit is 50% or less charged and should not be used for starting, but may be used to power most 24 volt accessories. Recharge as soon as possible.

Note: If the Roadstart is being recharged then all five LEDs will illuminate when the switch is pressed irrespective of the actual level of charge. To determine charge level first disconnect charger, wait a few minutes for batteries to stabilise and then depress switch.

4.2. Recharging the RS22

Note: When you receive your RS22 from new, check the charge level (see para. 4.1.). The unit may need to be charged for up to 22 hours (8 hours if being charged by vehicle system) to reach full capacity.

The RS22 should be fully re-charged in following situations:

i) When new. ii) Before heavy usage. iii) When only one or two of the charge indicator LEDs illuminates.

⚠ WARNING! Use supplied adaptor, cables and connectors. Unauthorised parts may damage unit and will invalidate your warranty. Ensure you strictly apply the safety instructions as stated in Section 3.

- 4.2.1. To recharge with the AC charging adaptor.
 - a) Ensure that the power clamps are stowed correctly.
 - b) Plug the AC charger cord into either of the input/output sockets of the unit and then connect charger to 230 Volt AC socket.
- 4.2.2. To recharge with the DC charging cable.
 - a) Ensure that the power clamps are stowed correctly.
 - b) With the vehicle engine running plug the DC charging cable into either of the input/output sockets of the unit and then the other end into the vehicle 24volt cigarette lighter socket. **Check first that the lighter socket is 24 volt.** The unit will be charged by the vehicle alternator.

Note: If the RS22 is completely discharged, then a 22 hour charge will be necessary (8 hours if being charged by vehicle system).

5. OPERATING INSTRUCTIONS



WARNING! YOU MUST FOLLOW SAFETY INSTRUCTIONS

5.1. To use as an emergency jump starter. (Remember to apply safety rules from Section 3).

NOTE: Before using for the first time, re-charge the Roadstart unit.

- 5.1.1. Put hand brake on and place in neutral gear ("Park" if automatic transmission).
- 5.1.2. Turn ignition and electrical accessories off.
- 5.1.3. Wear protective safety glasses and clothing.
- ⚠ WARNING!** Do not allow the red and black clamps to touch each other and ensure that they are connected to the correct battery terminals.
- 5.1.4. Attach the positive (RED +) clamp to the positive terminal on the flat battery (for a negative ground system). Ensure connecting points are clean.
- 5.1.5. Attach the negative (BLACK -) clamp to the (ground) engine block or frame of the vehicle. Ensure that the cables are not in the path of moving engine parts, such as fan and are away from the battery, carburettor/injection system, fuel lines etc.
- 5.1.6. Make sure that no one is standing near the battery. When all is OK, start the engine.
- 5.1.7. Once the vehicle has started, disconnect the negative (BLACK -) clamp first and stow on unit.
- 5.1.8. Then disconnect the positive (RED +) clamp and stow.

IMPORTANT: If vehicle does not start within 10 seconds, **DO NOT** continue to crank. Let the Roadstart's internal batteries cool for five minutes before attempting to start vehicle again. Failure to do so may damage the unit.

5.2. Use as a battery charger (first check that the vehicle lighter socket is 24 volt)

- 5.2.1. Plug DC charger into one of the two input/output sockets and the other end into the vehicle lighter socket.
- 5.2.2. Ensure all vehicle electrical equipment is switched off and then switch ignition on.
- 5.2.3. Allow RS22 to charge vehicle batteries for 30 minutes.
- 5.2.4. Switch ignition off and remove the DC charger cable. Start the vehicle.

Note: If the vehicle battery is defective it may not receive the intended charge. In such a case the battery should be checked by a specialist and changed if necessary.

5.3. Use as a vehicle's alternative power supply (first check that the vehicle lighter socket is 24 volt)

Use the RS22 to protect electrical components with built in memories such as radios, alarm systems, computers, phones, etc.

- 5.3.1. Plug DC charger into one of the two input/output sockets and the other end into the vehicle lighter socket.
- 5.3.2. Ensure all vehicle electrical equipment is switched off and then switch ignition on.
- 5.3.3. The vehicle batteries may now be disconnected/removed, taking care to prevent the positive battery cable terminal from contacting any metalwork (cover it with a heavy duty plastic bag).The unit will now take o any electronic memory.
- 5.3.4. When the vehicle batteries, fully charged, have been refitted, the RS22 may be disconnected.

5.4. Use as a multi-purpose power supply

- 5.4.1. The Roadstart may be used as a portable power source for 24V DC accessories equipped with a male lighter plug. For example: portable light, coffee maker, portable TV etc. The two DC outlets have a single 10 amp fuse. Therefore if one socket is being used it will be protected against the current exceeding 10 amps. If both sockets are being used then the 10 amp protection applies to the combined current draw - i.e. 4amps + 5amps is OK, but 3 amps + 8 amps will blow the fuse.

6. TROUBLESHOOTING

THE PROBLEM	THE SOLUTION
Unit has been recharged for 20 hours but there is no change in status of LEDs.	Check charger to see if it is charging. Charger should be warm. Check all wire connections.
Charger works well but still no change in status of LEDs.	Possible defective battery.
No lights comes on, but when the AC adaptor is plugged into the Roadstart, all the lights come on.	The internal battery of the Roadstart needs to be replaced.
Roadstart is fully charged but has no power.	Check where the cables join the jaws on the Roadstart clamps. Make sure they are well crimped.
When connecting an accessory through the inlet/outlet socket there is no power.	Accessory, or accessories, drawing more than 10 amps and causing fuse to blow. Replace fuse and check accessory current draw.

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 local authority regulations.
What is the ideal in-use storage temperature of the Roadstart?	Room temperature. The Roadstart will also operate at temperature 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 batteries in the Roadstart?	Yes, but note that batteries, as consumable items, are not covered by warranty.

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.

<p>AC/DC Adaptor Model No. RS22/C</p> <p>73/23/EEC Low Voltage Directive 89/336/EEC EMC Directive 93/68/EEC CE Marking Directive</p>		<p>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.</p> <p>Signed by Mark Sweetman  12th June 2001</p> <p><i>For Jack Sealey Ltd. Sole importer into the UK of Sealey Power Products.</i></p>
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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.

	<p>Sole UK Distributor, Sealey Group, Bury St. Edmunds, Suffolk.</p>	<p> 01284 757500</p>	<p> 01284 703534</p>	<p>E-mail: sales@sealey.co.uk Web address: www.sealey.co.uk</p>
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