



# ROADSTART® EMERGENCY JUMP STARTER 12V 2LTR 4 CYLINDER/3.5LTR 6 CYLINDER 5LTR 8 CYLINDER PETROL.

MODEL NO: **RS1B, RS102B, RS103B**

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



Refer to instructions



Warning



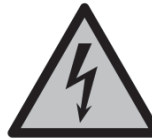
Wear eye protection



Warning corrosive substance



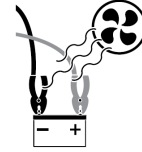
Wear protective gloves



Electrical shock hazard



Keep in dry area protect from rain



Use in well ventilated areas



Keep away from sources of ignition

## 1. SAFETY

**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. Modern vehicles contain extensive electronic systems. Check with the vehicle manufacturer for any specific instructions regarding the use of this type of equipment on each vehicle. No liability will be accepted for damage/injury where this product is not used in accordance with all instructions.

### 1.1. SAFETY INSTRUCTIONS

- ✓ 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.
  - ✓ 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.
  - ✗ **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.
  - ✗ **DO NOT** charge or boost a frozen battery.
  - ✗ **DO NOT** use attachments other than those recommended.
  - ✗ **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 a charger / cables that are damaged. Replace 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. Keep the unit fully charged on a regular basis.
- 1.2. **ELECTRICAL SAFETY** (with respect to mains chargers)
- **WARNING!** It is the user's responsibility to check the following:
    - You must check the mains charger to ensure that it is safe before using.
    - 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 stockist. You must read and understand instructions concerning electrical safety.
    - 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.
    - 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.
  - ✓ Ensure that the insulation on all cables and the product itself is safe before connecting to the mains power supply.
  - ✓ Ensure that cables are always protected against short circuit and overload.

## 2. INTRODUCTION

Composite case with integral battery clamp storage and carry handle. Suitable for starting vehicles with 4/6/8 cylinder (RS1B/RS102B/RS103B, respectively) petrol or diesel engines up to 2ltr/3.5ltr/5ltr. Front panel displays internal battery charge levels and includes an integral LED work light. Audible reverse polarity warning. Mains charger with automatic power cut-off prevents damage to battery whilst charging. Inbuilt MOSFET circuit protection. Fitted with two 12V power sockets that will accept any 12V device with a vehicle accessory socket plug. Single 5V 2.4A USB output. Supplied with mains charger.

## 3. SPECIFICATION

Model No.....	RS1B.....	RS102B.....	RS103B
Cold Cranking Amps.....	200A.....	300A.....	420A
Peak Amps.....	900A.....	1200A.....	1900A
Voltage.....	12V.....	12V.....	12V
Auxiliary Output USB.....	5V/2.4A.....	5V/2.4A.....	5V/2.4A
Auxiliary Output.....	2x12V.....	2x12V.....	2x12V
Cable/clamp length .....	0.6m.....	0.6m.....	0.7m

## 4. OPERATION



fig.1



fig.2

- 1 On/Off switch
- 2 Internal battery level
- 3 Worklight switch
- 4 Internal battery level LED display
- 5 Charge socket
- 6 Worklight
- 7 12V power socket
- 8 USB switch
- 9 USB socket

### 4.1. JUMP STARTING

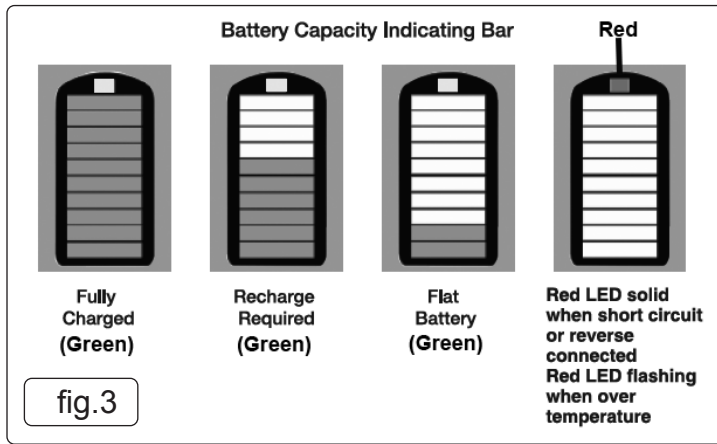
- 4.1.1. Ensure both the ignition of vehicle and the Roadstart power switch are switched off before any connections are made to the battery.
- 4.1.2. Connect the red (+, positive) clamp of the Roadstart to the red (+, positive) battery terminal of the vehicle.
- 4.1.3. Connect the black (-, negative) clamp of the Roadstart to a non-moving metal part of the engine or chassis (avoid connecting to fuel lines).
- 4.1.4. Turn the Roadstart On/Off switch to the ON position. If there is an initial (short) beep and momentary red LED when connecting to a vehicle with a low battery, this is normal. Once the Roadstart and vehicle battery are balanced the alarm should cease. If the alarm and flashing red LED continue at 25 second intervals, it indicates that the Roadstart battery has been drawn down to less than 60% during balancing.  
If there is a solid red LED, and continuous alarm, this indicates reverse polarity. Turn the On/Off switch to Off, and correct the connections, as above, points 4.1.2. and 4.1.3.
- 4.1.5. Once the Roadstart power switch is On, leave for approximately 30 seconds.  
**CAUTION:** Do not crank the engine for any more than 5 seconds at a time.
- 4.1.6. If the engine fails to start, wait for at least 2 minutes before trying again to avoid overloading the unit.
- 4.1.7. Once the engine is running, switch the Roadstart power switch to the Off position. Disconnect the black clamp from the vehicle battery first, and return the cable to its storage position on the Roadstart unit.
- 4.1.8. Disconnect the red clamp last, and return the cable to its storage position on the Roadstart unit. As soon as possible, connect the Roadstart to the supplied mains charger and recharge the unit to maintain battery life, (see section 4.6).

### 4.2. LED MULTI-FUNCTION DISPLAY fig.1/fig.3.

The LED Battery display on the front panel shows several important pieces of information:

- 4.2.1. With the power switch turned to On, pressing the internal battery level button at any time, will display green bars, which indicate the level of charge in the Roadstart.

#### 4.3. BATTERY CAPACITY INDICATING BAR



#### 4.4. OPERATION AS A PORTABLE POWER SUPPLY

##### 4.4.1. USB TYPE A SOCKET:

This Roadstart is fitted with a 5V USB output on the rear of the unit. Plug in your USB cable to the socket, connect to your device and switch the USB On/Off switch, fig.2, to the On position. The USB socket is fitted with an overload circuit; if the socket is overloaded power will be switched off and will automatically reset after 2 minutes.

##### 4.4.2. 12V POWER SOCKETS:

This unit is fitted with 2 x 12V power sockets. Plug in your device and power will be available as soon as a connection is made, whether the power switch is in the On or Off position. These sockets combined are rated at 15 Amps. Please do not exceed these rated limits to prevent overloading the internal circuitry. Ensure the rubber dust covers are placed over the sockets when not in use to prevent dust or moisture from entering the socket.

##### 4.5. LED WORKLIGHT

Depress the worklight switch once to turn the light on. Depress the switch again to turn the light off.

##### 4.6. RECHARGING THE ROADSTART UNIT

4.6.1. For maximum battery life it is recommended that this unit be kept fully charged at all times. Use only the supplied charger, as it is automatic and does not require monitoring of the charging process. Failure to do so could damage the unit, and will invalidate the warranty. Plug the charger into the mains socket and insert the round charging plug into the charge socket. The charger will display a red LED while charging and should be left connected until the Roadstart LED display indicates full.

4.6.2. If it is not practicable to leave the Roadstart on charge full time, recharge the unit every 3 months even if it isn't used.

4.6.3. Recharge the unit as soon as possible if the low voltage warning activates.

4.6.4. Avoid storage in extreme temperatures where possible (above 50° C and below freezing).

4.6.5. Never store the unit in a discharged state.

4.6.6. **Low Internal Battery Voltage alarm** - This unit is fitted with an alarm to indicate that the Roadstart battery has reduced to less than 60%. There is a beep together with a flash of the red LED, see fig.3, at 25 second intervals, whilst the On/Off switch is set to On.

##### 4.7. BATTERY DISPOSAL:

The lead acid battery contained in this Roadstart should be recycled once expired (consult your local authority requirements for safe disposal of lead acid batteries).

To remove the battery, remove the screws surrounding the back housing then remove the rear panel to expose the battery cavity.

Unscrew the two hex head screws on the battery terminals and then gently slide the battery out of its cavity. Once the battery is out, insulate the battery terminals with strips of electrical tape to prevent accidental short circuits.

## 5. INBUILT SAFETY SYSTEMS

5.1. This Roadstart is fitted with sophisticated electronic safety systems to protect the unit and the connected battery in the result of accidental user error. Even with these protection systems in place, extreme care should be taken with the correct identification of the system voltage and the batteries being jump started.

5.1.1. **Short circuit protection:** In the event of accidentally touching the positive and negative clamps together while switched on, the unit will shut off output power thereby preventing a dangerous overload situation. A small spark may still emit from the clamps, care should still be taken to not short circuit the unit around lead acid batteries.

5.1.2. **Reverse Polarity Protection:** If the unit is accidentally connected in the reverse polarity when switched on, the red LED on the front panel will illuminate along with a continuous warning tone (beep). Power will not output during reverse connection. Switch off the main switch and correct the polarity of the connection.

The Roadstart will only detect a reverse polarity connection when the main switch is on.

5.1.3. **24V battery connection protection:** In the event of accidental connection to a 24V battery system, the Roadstart unit will automatically enable its overload protection and switch power output off. The red LED, see fig.3, will illuminate on at the front panel, along with the warning tone. Even though this protection will protect the Roadstart from catastrophic failure, extreme care should be taken by the user to correctly identify the type of battery to be jump started and the operating voltage of the system.

5.1.4. **Over load and over temperature protection:** When in use as a Roadstart, if load is too big or unit is under load for too long, the red LED on front panel will flash, see fig.3, also the Roadstart will stop output. After a period of resting time it will automatically start again.



#### ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



#### WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.



#### BATTERY REMOVAL

Under the Waste Batteries and Accumulators Regulations 2009, Jack Sealey Ltd are required to inform potential purchasers of products containing batteries (as defined within these regulations), that they are registered with Valpak's registered compliance scheme. Jack Sealey Ltd Batteries Producer Registration Number (BPRN) is BPRN00705.

**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 product.

**Warranty:** Guarantee is 12 months from purchase date, proof of which is required for any claim.

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