



INSTRUCTIONS FOR:

ROADSTART® EMERGENCY POWER PACKS DEKRA APPROVED

PART No's: **PBI2212S, PBI3612S, PBI3624S, PBI4424S**

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.

Safety Markings/Symbols



Read
Instructions
Before Use



Fuse-
section 6.2
refers



Keep Dry



Use in Well
Ventilated
Area



Keep away from
Ignition Sources;
Danger of Explosive
Gases

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.

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 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.
- ✓ This RoadStart is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
- ✓ 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 30 days or sooner.
- x **DO NOT** touch positive and negative clamps together as this could cause an explosion.
- x **DO NOT** smoke or allow a spark, or flame in the vicinity of the battery or engine.
- x **DO NOT** drop any metal item onto the battery as it may spark or short circuit the battery, which could cause an explosion.
- x **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.
- x **DO NOT** charge or boost a frozen battery.
- x **DO NOT** use attachments other than those recommended. To do so may cause damage to the unit and other equipment and possible personal injury.
- x **DO NOT** pull or carry the unit 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 unit with plugs, cables or attachments that are damaged. Replace such items immediately.
- x **DO NOT** use this RoadStart to perform a task for which it is not designed.
- x **DO NOT** store the unit in damp or wet locations or where the 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 unit in a totally discharged state for an extended period of time as this may result in permanent damage to the battery.
- x **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.



2. INTRODUCTION

Manufactured with professional grade, high performance Hawker Enersys AGM battery produced in the USA specially formulated to jump-start vehicles with AGM, calcium, lead acid and sealed lead acid batteries. The Hawker Enersys batteries are sealed and are able to be stored in any position. These RoadStarts® are the first with DEKRA approval. Ventilation and integrated fan ensures potential gases escape safely. Features a tough, high impact casing which is durable and corrosion proof for easy portability and is fitted with a rubber boot on the base to protect unit from knocks and bangs. Fitted with isolating rotary on/off switch. All units feature two-function digital display which indicates internal and vehicle's battery voltage and percentage of charge when charging internal batteries. Also indicates charging voltage when engine is running. Connecting the vehicle's battery before the unit is switched on, allows the user to see the current battery voltage. A fusible link integrated in the charging cable gives increased protection to the unit while making for an easier fuse change without disassembly. A 15A thermal trip fuse is integrated in the 12V accessory socket, which if activated is self-resetting. Surge and spike protection prevent damage to delicate and sophisticated vehicle electronics. Extra-long 1,000 strand pure copper output cables are flexible down to -40°C. The clamps are manufactured with braided link to each jaw for maximum power transmission. Easy cable wrap storage with clamp 'holsters' ensure the unit is compact and tidy when not in use. Audible warning system (AWS) to advise operator of reverse polarity, overvoltage (to protect 12V versions) and connection reminder. The AWS will sound if charger has been turned on for too long without being connected to a battery. The external 2A automatic charger/maintainer has been specifically programmed for Hawker batteries and features SpeedCharge® technology for fast, safe charging and maintenance.

3. SPECIFICATIONS

Model No:	PBI2212S	PBI3612S	PBI3624S	PBI4424S
Starting Current:	545A	910A	690A	910/690A
Peak Amps:	1900A	4400A	3800A	4400/3800A
Voltage:	12V	12V	24V	12/24V
Auxiliary Output:	12V	12V	12V	12V
Cable & Clamp Length:	1.27mtr	1.39mtr	1.39mtr	1.39mtr
Weight:	9.72kg	19.64kg	19.64kg	19.64kg

Product Features

- 1) On/off switch (or 12V / 24V selector on PBI4424S)
- 2) Digital display
- 3) 12V DC power outlet
- 4) Positive battery clamp
- 5) Negative battery clamp
- 6) Internal battery status button



4. CHARGING INSTRUCTIONS



WARNING! YOU MUST FOLLOW SAFETY INSTRUCTIONS

IMPORTANT Charge RoadStart for 72 hours immediately after purchase. After each use connect the charger to the Roadstart in order to charge and maintain the internal battery. The intelligent charger will monitor and maintain the Roadstart battery indefinitely. Never wait until the RoadStart is completely discharged before recharging.

- 4.1. Read the entire manual before using this product. Failure to do so could result in serious injury or death.
- 4.2. This charger is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the charger by a person responsible for their safety.
- 4.3. Children should be supervised to ensure they do not play with the charger.
- 4.4. **WARNING RISK OF EXPLOSIVE GASES. PREVENT FLAMES AND SPARKS. PROVIDE ADEQUATE VENTILATION DURING CHARGING.**
- 4.5. The charger and RoadStart must be placed in a well-ventilated area during use.
- 4.6. Make sure to place the charger on a dry, non-flammable surface, such as metal or concrete.
- 4.7. 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. Review the cautionary markings on these products and on the engine.
- 4.8. **Digital Display on the RoadStart**
To check the internal battery's charge status, either press the Battery Status button to get the percent of charge or turn the ON/OFF switch to the ON position to get the battery voltage. Charge the internal battery if the display shows it is under 100%. When connected to the vehicle, the display shows the vehicle's battery voltage. When connected and in the ON position, the display shows the equalized voltage between the vehicle's battery and the internal battery.
NOTE: The internal battery's charge status is most accurate when the RoadStart has been disconnected from all devices and charging sources for a few hours.

4.8. LED Indicators on the Charger

CHECK BATTERY  (red) **LED lit:** Indicates that the charger is not properly connected to the Roadstart. If the charger does not detect a properly connected battery, the CHECK BATTERY LED will light. Charging will not begin if the CHECK BATTERY LED is on.

CHECK BATTERY  (red) **LED flashing:** Indicates the charger is in abort mode. If charging cannot be completed normally, charging will abort. When charging aborts, the charger's output is shut off and the CHECK BATTERY LED will flash. To reset after an aborted charge, unplug the charger from the AC outlet, wait a few moments and plug it back in.

CHARGING  (amber) **LED lit:** Indicates the charger has detected a battery and is charging it. After the battery is fully charged, the charger will automatically go into maintain mode and maintain it at full charge without damaging it.

CHARGED  (green) **LED lit:** Indicates the battery is fully charged and the charger is in maintain mode. When the CHARGED LED is lit, the charger has started Maintain Mode. In this mode, the charger keeps the battery fully charged by delivering a small current when necessary. NOTE: The maintain mode technology utilized in Sealey chargers allows you to safely charge and maintain a healthy battery for extended periods of time. However, problems with the battery, electrical problems in the RoadStart, improper connections or other unanticipated conditions could cause excessive current draws. As such, occasionally monitoring your battery and the charging process is recommended. **NOTE:** Even if the digital display is showing 100%, the internal battery is not fully charged until the LED on the charger shows green.

4.9. Charging the RoadStart's Internal Battery using the Included Charger

IMPORTANT Only use the charger that was included with the RoadStart to charge the internal battery. Using any other charger or using the included charger for any other purpose could result in personal injury or property damage.
(Refer to charger safety instructions in Section 1.3)

4.10. Charging

- 4.10.1. To charge, plug the included charger into the charger plug on the side of the RoadStart.
- 4.10.2. Plug the charger into an electrical wall outlet, ensuring that the input voltage matches that required by the charger. Make sure to place the charger on a dry, nonflammable surface like metal or concrete.
- 4.10.3. While the RoadStart is charging, the CHARGING LED will light on the charger. Complete charging may take up to 24 hours. The RoadStart is then ready to use.
- 4.10.4. After charging disconnect the charger from the supply mains. Then remove all connections to the RoadStart.

5. OPERATION

5.1. Jump Starting a Vehicle Engine

IMPORTANT: DO NOT use the RoadStart while charging the internal battery.

- 5.1.1. Turn the vehicle's ignition OFF before making cable connections.
- 5.1.2. Connect the RoadStart to the vehicle's battery, positive (red) first, then negative (black) should be connected to an earth on the chassis. If you have connected the clamps incorrectly, an audio alarm will sound. **DO NOT** turn the RoadStart ON/OFF switch to the ON position. This could cause serious damage to the RoadStart or the vehicle. Reverse the connections and the audio alarm will stop.
- 5.1.3. Turn the RoadStart ON/OFF switch to the ON position.
- 5.1.4. Crank the engine. If the engine does not start within 3-8 seconds, stop cranking and wait at least 1 minute before attempting to start the vehicle again, (this permits the RoadStart battery to cool down).
- 5.1.5. After the engine starts, turn the RoadStart ON/OFF switch to the OFF position, within 15 seconds.
NOTE: If the vehicle's charging system is allowed to continue to charge the RoadStart's internal battery, the audible warning system will operate if the battery reaches 15V - immediately disconnect as below to prevent damage.
- 5.1.6. Disconnect the RoadStart from the vehicle, negative (black) first, then the positive (red) clamp. Return the battery clamps to their storage holders and recharge the RoadStart.
- 5.1.7. When using the other features of the RoadStart, always observe the following steps:
- 5.1.8. Ensure the battery clamps are securely clipped in the storage holders.
- 5.1.9. Charge the RoadStart as soon as possible after using.

IMPORTANT An audible warning will sound if:

- the clamps are incorrectly connected
- PBI4424S if 24V is selected
- if RoadStart is connected to a 24V vehicle, and 12V is selected.

5.2 Powering a 12V DC Device:

The RoadStart is a power source for all 12V DC accessories that are equipped with a 12V accessory plug. Make sure the device to be powered is OFF before inserting the 12V DC accessory plug into the 12V DC accessory outlet.

- 5.2.1 Open the protective cover of the DC power outlet on the front of the RoadStart.
- 5.2.2 Plug the device into the outlet and turn the device on (if required).
- 5.2.3 If the device draws more than 15A or has a short circuit, the internal circuit breaker of the RoadStart will trip and disconnect the power to the device. Disconnect the device and the breaker will automatically reset.
The DC power outlet is wired directly to the internal battery. Extended operation of a 12V device may result in excessive battery drain. Recharge immediately after unplugging the device.

6. MAINTENANCE

6.1. Charger Maintenance Instructions

- 6.1.1. Unplug the charger from the RoadStart before attempting any maintenance or cleaning.
- 6.1.2. Use a dry cloth to wipe dirt or oil from the charger. Do not use cleaning fluids.
- 6.1.3. All other servicing should be performed by qualified personnel.
- 6.1.4. If the supply cord is damaged, it must be replaced. Contact your Sealey service agent.

6.2. Fuse Replacement For The RoadStart

The RoadStart is equipped with an external fuse to protect the battery from overload.

WARNING Disconnect the charger unit from mains supply.

- 6.2.1. To replace the fuse if it has blown, use a flat bladed screwdriver to gently push in the fuse cover release clips at each end, to release the cover.
- 6.2.2. Undo the two 13mm nuts and replace the fuse.
- 6.2.3. Refit the cover.

7. TROUBLESHOOTING

RoadStart

Problem	Possible Cause	Solution
The RoadStart won't jump start the vehicle.	Clamps are not making a good connection.	Check for poor connection to battery and to the chassis. Make sure connection points are clean. Rock clamps back and forth for a connection.
	The RoadStart battery is not charged.	Check the battery charge status by pressing the button on the front of the RoadStart. See section 4 of this manual.
	The vehicle's battery is defective.	Have the battery checked.
	The external (500A) fuse has blown.	Replace the fuse, (see section 6.2).
The RoadStart won't power a device.	The 12V device is not turned on.	Turn on the 12V device.
	The RoadStart battery is not charged.	Check the battery charge status by pressing the button on the front of the RoadStart. See section 4 of this manual.
	The 12V device draws more than 15A or has a short circuit.	Disconnect the 12V device. The internal breaker will automatically reset after a minute or two. Try the 12V device again. If it happens again, replace the 12V device.
The battery in the RoadStart won't hold a charge.	The battery is faulty (will not accept a charge).	Have the battery checked.
RoadStart shows 100% charge, but charger charging (amber LED).	Unit needs more charge.	Charge RoadStart until the charger's 'charged' green LED comes on.

Charger

Problem	Possible Cause	Solution
CHECK BATTERY (red) LED on charger is on.	Charger is not making a good connection to the Roadstart.	Check the connection. Make sure the connection points are clean.
	Battery is defective (will not accept a charge.)	Have the battery checked.
CHECK BATTERY (red) LED is flashing.	Indicates charger is in abort mode.	See Section 4.8.

Parts support is available for this product. To obtain a parts listing and/or diagram, please log on to www.sealey.co.uk, email sales@sealey.co.uk or telephone 01284 757500.



Environmental Protection.

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycle centre and disposed of in a manner which is compatible with the environment.



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. 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

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.

1. Place the RoadStart unit front side down.
2. Remove the screws from the rear panel and lift off from the unit enclosure.
3. Disconnect the wires from the two battery terminals, taking care to avoid accidental arcing of the terminals.
4. Lift the battery (batteries) out of the casing.



Disposal

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

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's 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 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.



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