



2300A 12V ROADSTART® EMERGENCY JUMP STARTER
4600A 12/24V ROADSTART® EMERGENCY JUMP STARTER
MODEL NO's: **PBI2212GS, PBI4424GS**

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



Wear eye protection



Wear protective gloves



Electrical shock hazard



Warning: corrosive substance



Warning: explosive material



Keep away from sources of ignition



Use in well ventilated areas



Keep in dry area protect from rain

1. SAFETY

1.1. ELECTRICAL SAFETY FOR USE OF CHARGER

- WARNING!** It is the user's responsibility to check the following:
 - ✓ Check all electrical equipment and appliances to ensure that they are safe before using.
 - ✓ Inspect power supply leads, plugs and all electrical connections for wear and damage.
 - ✓ Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.
 - ✗ **DO NOT** use worn or damaged cables, plugs or connectors.
 - ✓ Ensure that any faulty item is repaired or replaced immediately by a Sealey qualified technician.
 - ✓ If the cable or plug is damaged during use, switch off the electricity supply and remove from use.
 - ✓ Sealey recommend that an RCD (Residual Current Device) is used with all electrical products.
- Important:** Ensure that the voltage rating on the appliance suits the mains power supply.
- ✗ **DO NOT** pull or carry the appliance by the power cable.
- ✗ **DO NOT** pull the plug from the socket by the cable.
- ✓ Uncoil the cable between charger and the RoadStart®.
- WARNING! DO NOT** use any other type of charger with this product, other than the supplied mains or car charger. Failure to observe this warning could result in injury and or fire and will invalidate the warranty.
 - ✗ **DO NOT** try to take the charger plug apart.
 - ✗ **DO NOT** use the charger plug to charge or power any other electrical item.
 - ✗ **DO NOT** get the charger wet, or use in wet, damp conditions (for indoor use only).

1.2. BATTERY SAFETY

- WARNING!** To reduce the risk of burns or fire:
 - ✗ **DO NOT** attempt to open, disassemble, modify or service the battery pack.
 - ✗ **DO NOT** crush, puncture, short external contacts or dispose of in fire or water.
 - ✗ **DO NOT** expose to temperatures above 60°C (140°).
 - ✓ Replace only with the battery pack designated for this product.
 - ✓ Recycle or dispose of used battery as stipulated by local regulation.
 - ✓ If the electrolyte in the cells gets on your skin, thoroughly wash with soap and water. If it gets in your eyes, rinse thoroughly with cool water and seek immediate medical attention.
 - ✓ Ensure the internal battery is fully charged before initial use.
 - ✗ **DO NOT** move/handle/use the Road Starter® when it is being charged.
 - ✗ **DO NOT** leave battery in a discharged state, recharge battery immediately. Only use charger supplied. Before storage, fully recharge the battery, subsequently recharge the battery at least once every six months of non-use.
- ▲ **DANGER! RISK OF EXPLOSIVE GASES. PREVENT FLAMES AND SPARKS. PROVIDE ADEQUATE VENTILATION DURING CHARGING. WORKING IN THE VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL OPERATION. FOR THIS REASON, IT IS IMPORTANT THAT YOU FOLLOW THESE INSTRUCTIONS EACH TIME YOU USE THE ROADSTART®.**

It is very important to read and follow these instructions carefully, each time you use the Roadstart..

Follow these instructions and those published by the battery and vehicle manufacturers, and the maker of any equipment you intend to use in the vicinity of the battery. Remember to review warning marks on all products and on engines.

WARNING! Modern vehicles contain extensive electronic systems.

You are required to 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.

1.3. PERSONAL PRECAUTIONS

- ✓ Ensure there is another person within hearing range of your voice and close enough to come to your aid, should a problem arise when working near a lead-acid battery.
- ✓ Wear safety eye protection and protective clothing. Avoid touching eyes while working near battery.
- ✓ Have fresh water and soap nearby in case battery acid contacts skin, clothing or eyes.
- ✓ 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 which is high enough to weld a ring or the like to metal, which would cause severe burns.
- ✓ Ensure hands, clothing (especially belts) are clear of fan blades and other moving or hot parts of engine, remove ties and contain long hair.
- ✗ **DO NOT** smoke or allow a spark or flame in the vicinity of battery or engine.

1.4. GENERAL SAFETY INSTRUCTIONS

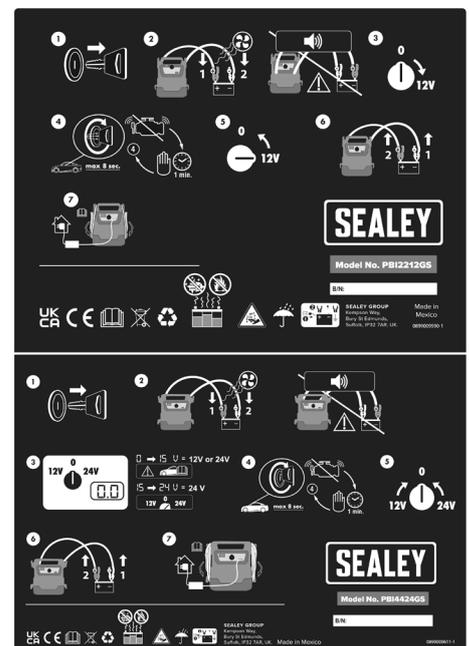
- ✓ **SAVE THESE INSTRUCTIONS** – Charge the Roadstart®'s internal battery. Only use supplied charger immediately after purchase, after each use and as often as possible. It is highly recommended to leave the Roadstart® permanently connected to the automatic charger. This manual will show you how to use your Roadstart® safely and effectively. Please read, understand and follow these instructions and precautions carefully, as this manual contains important safety and operating instructions.
 - ✓ Use the Road Starter® in the upright position only and ensure it is placed on a stable surface which will adequately support its weight.
 - ✓ Keep tools and other items away from the engine and ensure you can see the battery and working parts of engine clearly.
 - ✓ Keep children and unauthorised persons away from the working area.
 - ✗ **DO NOT** allow power clamps to touch each other or to make contact with any metallic part of the vehicle.
 - ✗ **DO NOT** cross connect power leads from Road Starter® to battery. Ensure positive (+/RED) is to positive and negative (-/BLACK) is to negative.
 - ✗ **DO NOT** pull the cables or clamps from the battery terminals.
 - ✗ **DO NOT** use the charger outdoors, or in damp, or wet locations and **DO NOT** operate within the vicinity of flammable liquids or gases.
 - ✗ **DO NOT** use for a task for which it is not designed.
 - ✓ When not in use, store carefully in a safe, dry, childproof location.
 - ✓ Only use for starting vehicles with 12/24V systems. **DO NOT** use for other vehicles such as aircraft, ships etc.
 - ✗ **DO NOT** use in place of a vehicle battery or as a battery charger.
 - ✓ Use the jumper cable provided with this unit only.
 - ✗ **DO NOT** Jump Start more than 3 times in a row. It could damage the unit by overheating. Give two minutes between attempts.
 - ✓ **Remove the product from the vehicle battery within 30 seconds of jump starting. If not, it could lead to damage.**
 - ✗ **DO NOT** modify or disassemble Road Starter®. Only a repair technician may repair this unit.
 - ✗ **DO NOT** drop unit. If unit receives a sharp blow or is otherwise damaged in any way have it checked by a qualified technician.
 - ✗ **DO NOT** use the unit to jump start a vehicle while charging the internal battery.
- NOTE:** This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

2. INTRODUCTION

Manufactured with professional grade, high performance AGM battery, produced in the USA and specially formulated to jump start vehicles. Both units are supplied with automatic maintenance chargers that feature patented microprocessor controlled speed charging, with thermal runaway protection. This means that unlike other booster packs, these units can be left safely on charge continuously ensuring your unit is always ready for use. Both units are fitted with an isolating rotary on/off switch and feature a 2-function digital display showing the internal battery level and the vehicle battery voltage. Fitted with a 12V accessory socket and a single 2.1A USB port ideal for charging mobile phones or tablets. A fusible link integrated in the output cable provides surge and spike protection, preventing damage to delicate and sophisticated vehicle electronics, as well as the booster. The heavy-duty clamps are manufactured with a braided link between each jaw for maximum power transmission, whilst also being curved allowing easy access to awkward or hard-to-reach battery terminals. Easy cable and clamp storage ensure the unit is compact and tidy when not in use. Audible warning system (AWS) to advise operator if the unit has been turned on for too long without being connected to a battery and for reverse polarity.

3. SPECIFICATIONS

Model No:	PBI2212GS	PBI4424GS
Auxiliary Output:	1 x USB - 2.1A, 1 x 12V	1 x USB - 2.1A, 1 x 12V
Cable & Clamp Length:	1.6m	1.7m
Fuse Rating:	300A	500A
Nett Weight:	9.5kg	17.5kg
Peak Amps:	2300A	4600A(12V)/2300A(24V)
Plug Type:	3-Pin	3-Pin
Power Supply Cable Length:	2m	2m
Starting Current:	900A	1800/900A
Voltage:	12V	12/24V



4. FEATURES

1	Heavy-duty battery clamps
2	Display button
3	Digital display
4	USB button
5	USB Port
6	Booster ON/OFF switch – 0 or 12V position for Model 12V / 0 or 12V or 24V position for Model 12/24V
7	12V DC socket
8	12V DC charge port
9	12V-2A charger
10	Power LED
11	Charging status LED
12	Bad Battery LED

5. PREPARATION

- 5.1. Clean the battery terminals before using the Roadstart®. During cleaning, keep airborne corrosion from coming into contact with your eyes, nose and mouth. Use baking soda and water to neutralize the battery acid and help eliminate airborne corrosion. **DO NOT** touch your eyes, nose or mouth.
- 5.2. Read, understand and follow all instructions for the Roadstart®, battery, vehicle and any equipment used near the battery and the Roadstart®.
- 5.3. Determine the voltage of the battery by referring to the vehicle owner's manual and make sure that the output voltage of the Roadstart® is correct.
- 5.4. Make sure that the Roadstart® cable clamps make tight connections.

6. CHARGING THE INTERNAL BATTERY

IMPORTANT: Charge immediately after purchase using the charger above, after each use and as often as possible. The Roadstart® can be left permanently connected to the automatic charger. Never wait until the Roadstart® is completely discharged before recharging.

6.1. DIGITAL DISPLAY ON THE ROADSTART®

When not connected to a vehicle battery and when the Roadstart® clamps are stored on their plastic storage holders: To check the internal battery's charge status, press the display button 3 above on the front of the Roadstart®. The digital display will show the battery's percentage (%) of charge. A fully charged battery will read 100%. Charge the internal battery if the display shows under 100%.

With the rotary switch in the ON position (not connected to a vehicle): Select the voltage 12V (or 24V PBI4424GS only), the digital display can be used to check the voltage level of the Roadstart®'s internal battery.

NOTE: The internal battery's percent of charge or Voltage level is most accurate when the Roadstart® has been disconnected from all devices and charging sources for a few hours.

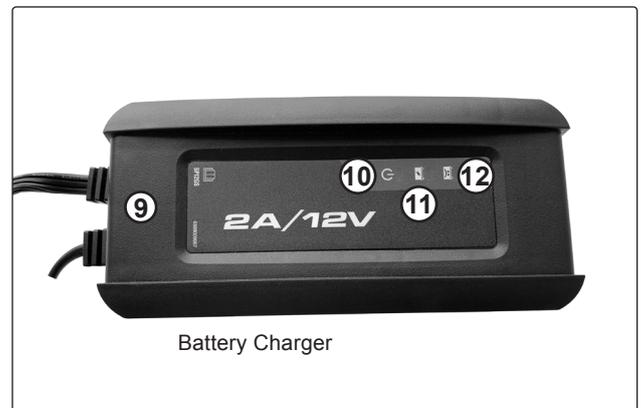
When connected to a vehicle battery AND the Roadstart® switch is in the OFF position: The digital display can be used to indicate the vehicle's battery voltage.

7. LED INDICATORS ON THE CHARGER

	POWER (green) LED lit: The charger is connected to AC power.
	CHARGING (yellow/orange) LED pulsing slowly: The charger is charging the battery inside the booster or is in maintaining mode.
	CHARGING (yellow/orange) LED flashing rapidly: The charger has detected a problem with the battery. See troubleshooting section for more information.
	BAD BATTERY (red) LED lit: The charger has detected a problem with the battery. See troubleshooting section for more information.



12/24 - PBI4424GS Illustrated



Battery Charger

8. CONNECTING TO A BATTERY

- ❑ **WARNING!** a spark near the battery may cause a battery explosion. To reduce the risk of a spark near the battery:
- 8.1. Attach the output cables to the battery and chassis as indicated below. Never allow the output clamps to touch each other.
- 8.2. Position the DC cables to reduce the risk of damage by the bonnet, door and moving or hot engine parts.
NOTE: If it is necessary to close the bonnet during the jump starting process, ensure that the bonnet does not touch the metal part of the battery clamps or cut the insulation of the cables.
- 8.3. Stay clear of fan blades, belts, pulleys and other parts that can cause injury.
- 8.4. Determine which post of the battery is earthed (connected) to the chassis. If the negative post is earthed to the chassis (as in most vehicles), see step 8.5. If the positive post is earthed to the chassis, see step 8.7.
- 8.5. For a negative-earthed vehicle, connect first the POSITIVE (RED) clamp from the Roadstart® to the POSITIVE (POS, P, +) unearthed post of the battery. Then connect the NEGATIVE (BLACK) clamp to the vehicle frame or engine block away from the battery. **DO NOT** connect the clamp to the carburettor, fuel lines or sheet-metal body parts. Connect to a heavy gauge metal part of the chassis or engine block.
- 8.6. When disconnecting the Roadstart®, first remove the clamp from the vehicle chassis, then remove the clamp from the battery terminal, in that order.
- 8.7. In the rare event that the vehicle is positive-earthed, connect the NEGATIVE (BLACK) clamp from the Roadstart® to the NEGATIVE (NEG, N, -) unearthed post of the battery. Connect the POSITIVE (RED) clamp to the vehicle chassis or engine block away from the battery. **DO NOT** connect the clamp to the carburettor, fuel lines or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
- 8.8. **CHARGING THE INTERNAL BATTERY USING THE INCLUDED WALL CHARGER**
 - ❑ **WARNING!** Only use the charger that was included with the Roadstart® to charge the internal battery of the Roadstart®. Using any other charger or using the included charger for any other purpose could result in personal injury or property damage.
 - ❑ **WARNING!** Risk of electric shock or fire.
 - 8.8.1. This battery charger is for use on a nominal 230V 50 Hz circuit. The plug must be plugged into an outlet that is properly installed in accordance with all local codes and ordinances. The plug pins must fit the receptacle (outlet).
 - ❑ **WARNING!** Never alter the AC cord or plug provided – if it does not fit the outlet, have a proper outlet installed by a qualified electrician. An improper connection can result in a risk of an electric shock or electrocution.
 - 8.8.2. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure:
 - That the pins on the plug of the extension cord are the same number, size and shape as those of the plug on the charger.
 - That the extension cord is properly wired and in good electrical condition.
 - That the wire size is large enough for the AC ampere rating of the charger.Recommended minimum cross-section size for extension cord:
 - 30.5 meters long or less – use a 1.0 mm² extension cord.
 - Over 30.5 meters long – use a 1.25 mm² extension cord.
- 8.9. **CHARGING**

Make sure that both the charger and the Roadstart® are placed on a dry, non-flammable surface.

To charge the Roadstart®, connect the charger included into the charging port that is located at the front of Roadstart®.

Confirm the AC outlet voltage matches the input voltage of the charger.

 1. Connect the charger into the electrical wall outlet and confirm that the Green POWER LED on the charger turns on.
 2. Check that the yellow CHARGING LED in charger starts flashing slowly to indicate that charge process has started. To know status of the charge, check the percentage shown at the display in booster.
 3. When the display on the Roadstart® shows 100 (%), the internal battery is fully charged and the Roadstart® is ready to use. Complete charging may take up to 24 hours.

NOTE: The yellow CHARGING LED on the charge will remain flashing after display shows 100%, because charger enters automatically into maintaining mode.

 4. After charge is complete and the Roadstart® is ready for use, disconnect the charger from the AC outlet, and then disconnect the charger from Roadstart®.

9. OPERATION

- 9.1. **JUMP STARTING A VEHICLE ENGINE**
 - ❑ **WARNING!** A spark near the battery may cause a battery explosion. To reduce the risk of a spark near the battery:
 1. Turn the vehicle's ignition OFF before making cable connections.
 2. Connect the Roadstart® to the vehicle's battery as described in section 8.
If you have connected the clamps backward, an audible 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.
 3. Turn the Roadstart® ON/OFF switch to the ON position.
 4. Crank the engine. If the engine does not start within 8 seconds, stop cranking and wait at least 3 minutes before attempting to start the vehicle again. This permits the Roadstart® battery to cool down.
 5. After the engine starts, immediately turn the Roadstart® ON/OFF switch to the OFF position.
 6. Disconnect the Roadstart® from the vehicle, as described in section 8.6.
 7. Return the battery clamps to the clamp holders. Recharge the Roadstart® as soon as possible after use.
- 9.2. **When using the other features of the Roadstart®, always observe the following steps:**
 1. Ensure the battery clamps are securely clipped on the clamp holders.
 2. Charge the Roadstart® as soon as possible after using the feature.
- 9.3. **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.

 1. Open the protective cover of the DC power outlet on the front of the Roadstart®.
 2. Plug the device into the outlet and turn the device on (if required).

3. If the device draws more than 15A or has a short circuit, the circuit breaker of the Roadstart® will trip and disconnect the power to the device. Disconnect the device and the beaker 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.

9.4. POWERING A USB DEVICE

The Roadstart® is a power source for all accessories that are equipped with a USB plug. The USB port provides up to 2.1A at 5V DC.

1. Ensure the battery clamps are securely clipped on the storage holders.
2. Press the USB button on the front of the unit.
3. Plug the device into the USB port on the front of the unit.
4. Turn the USB device on.
5. Reverse these steps when finished using the USB port.

NOTE: The USB port will shut-off automatically after 60 minutes, if no device is connected. Extended operation of a USB device may result in excessive battery drain. Recharge the Roadstart® immediately after unplugging the device.

9.5. FUSE REPLACEMENT FOR THE ROADSTART®

The Roadstart® is equipped with an inline fuse in the red clamp, to protect the battery from overload.

FUSE SPECIFICATION:

PBI2212GS Roadstart® 12V: Fast blow, DC automotive type, rated 32V, 300A (Bussman/Audio Ohm Srl).

Roadstart® PBI4424GS 12/24V: Fast blow, DC automotive type, rated 32V, 500A (Bussman/Audio Ohm Srl).

❑ **WARNING!** Keep away from sparks and flame – battery could emit explosive gases.

1. Allow the fuse to cool down completely (approximately 5 minutes).
2. Make sure the switch is in the OFF position and the unit is unplugged from the external charger.
3. Remove the positive (RED) clamp from the side of the unit and locate the fuse holder.
4. Open the fuse holder by removing its cover.
5. Using a wrench, remove the first nut and bolt securing the fuse on the positive cable. Repeat the same steps for the second nut and bolt. Remove the open fuse and replace it with a new one of the same type and rating.
6. Tighten the nuts and bolts to secure the fuse, and then replace the cover of the fuse holder.
7. The unit is now ready to use.

10. MAINTENANCE

10.1. Cleaning and user maintenance should not be done by children without supervision.

❑ **WARNING!** Unplug the charger from the booster before attempting any maintenance or cleaning.

10.2. Use a dry cloth to wipe all battery corrosion and other dirt or oil from the battery clamps, cords and the Roadstart® case. **DO NOT** use cleaning fluids.

10.3. Ensure that all of the Roadstart® components are in place and in good working condition.

10.4. All other servicing should be performed by qualified service personnel.

10.5. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons, in order to avoid a hazard.

10.6. MOVING AND STORAGE INSTRUCTIONS

10.7. Store the Roadstart® in an upright position, inside, in a cool, dry place.

10.8. Always make sure the Roadstart® is fully charged before storing. When not in use, it is highly recommended to leave the Roadstart® on charge.

✖ **DO NOT** use and/or store the Roadstart® in or on any area or surface where damage could occur if the internal battery should unexpectedly leak acid.

11. END OF LIFE

11.1. Roadstart® has a sealed, lead-acid type battery. At end of its service life it must be recycled according to national regulations. Contact Sealey for advice.

12. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REASON/SOLUTION
The Roadstart® won't jump start my car.	Clamps are not making a good Connection to the battery.	Check for poor connection to battery and frame. Make sure connection points are clean. Rock clamps back and forth for a better connection.
	The Roadstart® battery is not charged.	Check the battery charge status by pressing the button on the front of the Roadstart®. See LED Indicators section of this manual.
	The vehicle's battery is defective.	Have the battery checked.
	The fuse has blown.	Replace the power fuse (See section 9.5).

The Roadstart® won't power my 12V device.	<p>The 12V device is not turned on.</p> <p>The Roadstart® battery is not Charged.</p> <p>The 12V device draws more than 15A or has a short circuit.</p>	<p>Turn on the 12V device.</p> <p>Check the battery charge status by pressing the button on the front of the Roadstart®. See LED Indicators section of this manual.</p> <p>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.</p>
The battery in the Roadstart® won't hold a charge.	The battery is bad (will not accept a charge).	Have the battery checked.
The green POWER LED does not light when charger is properly connected.	<p>AC outlet is dead.</p> <p>Poor electrical connection.</p>	<p>Check for open fuse or circuit breaker At the supplying AC outlet.</p> <p>Check power cord and extension cord for a loose fitting plug.</p>
The red BAD BATTERY LED is lit and yellow/orange CHARGING LED is flashing rapidly.	Desulfation was unsuccessful.	<p>The battery may be defective. Make sure there are no loads on the battery. If there are, remove them. If there are none, have the battery checked or replaced.</p> <p>The battery may be defective. Have battery checked or replaced.</p>



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.



REGISTER YOUR PURCHASE HERE



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 SEE SECTION 10.9

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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