



230V HHO ENGINE CARBON CLEANER

MODEL NO: **CC230V**

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



Wear safety footwear



Wear protective clothing



Wear ear protection



Electrical shock hazard



Hot surfaces



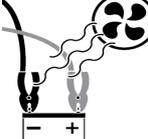
Warning
Corrosive substance



Keep in dry area
protect from rain



Wear a mask



Use in well
ventilated areas



Warning



Do not cover



Warning:
No open flames

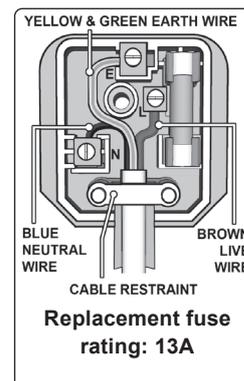
1. SAFETY

1.1. ELECTRICAL SAFETY

- **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. Sealey recommend that an RCD (Residual Current Device) is used with all electrical products. You may obtain an RCD by contacting your local Sealey stockist.
If the product is used in the course of business duties, it must be maintained in a safe condition and routinely PAT (Portable Appliance Test) tested.

ELECTRICAL SAFETY INFORMATION: it is important that the following information is read and understood.

- 1.1.1. Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.
- 1.1.2. Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that they are secure.
- 1.1.3. **IMPORTANT:** Ensure that the voltage rating on the appliance suits the power supply to be used and that the plug is fitted with the correct fuse - see fuse rating in these instructions.
 - × **DO NOT** pull or carry the appliance by the power cable.
 - × **DO NOT** pull the plug from the socket by the cable.
 - × **DO NOT** use worn or damaged cables, plugs or connectors. Ensure that any faulty item is repaired or replaced immediately by a qualified electrician.
- 1.1.4. This product is fitted with a BS1363/A 13 Amp 3 pin plug.
If the cable or plug is damaged during use, switch the electricity supply and remove from use.
Ensure that repairs are carried out by a qualified electrician.
Replace a damaged plug with a BS1363/A 13 Amp 3 pin plug. If in doubt contact a qualified electrician.
 - A) Connect the GREEN/YELLOW earth wire to the earth terminal 'E'.
 - B) Connect the BROWN live wire to the live terminal 'L'.
 - C) Connect the BLUE neutral wire to the neutral terminal 'N'.Ensure that the cable outer sheath extends inside the cable restraint and that the restraint is tight.
Sealey recommend that repairs are carried out by a qualified electrician.



1.2. GENERAL SAFETY

- **WARNING!** Ensure Health & Safety, local authority, and general workshop practice regulations are adhered to when using this unit. Wear appropriate PPE.
- ✓ Familiarise yourself with the applications, limitations and potential hazards of the unit.
- **WARNING:** Only use in well ventilated areas. Exhaust gases are poisonous.
- ✓ Operators must receive adequate training before using the unit.
- ✓ Always perform automotive work in a safe environment.
- × **DO NOT** operate the unit while under the influence of drugs, alcohol or intoxicating medication, or if tired.
- × **DO NOT** cover the unit or place heavy loads on top of it.
- × **DO NOT** operate in wet or damp conditions.
- ✓ Check the condition and operation of all components before each use.
- ✓ Operate the unit on a smooth level surface in order to avoid tipping or spillage.
- ✓ Stand correctly keeping a good footing and balance, ensure that the floor is not slippery and wear non-slip shoes.
- ✓ Keep unauthorised persons away from the work area. Any persons working within the area must wear the same protective items.
- ✓ Keep the unit and cables in good working order and condition. Take immediate action to repair or replace damaged parts.

❑ **WARNING:** Read and adhere to instructions and safety guidelines provided with your choice of electrolyte.

NOTE: Only use electrolytic powder that is 90% pure.

NOTE: Mix ratio of electrolytic powder to water is 1:10.

1.3. FLUID SAFETY

- ▲ **CAUTION:** Harmful if swallowed.
- ▲ **CAUTION:** Causes severe skin burns and eye damage.
- × **DO NOT** breathe vapour.
- × **DO NOT** eat, drink or smoke when using this product.
- ✓ Wash hands and other skin areas exposed thoroughly after handling.
- × **DO NOT** eat, drink or smoke when using this product.
- ✓ Wear protective gloves/protective clothing/eye protection/face protection.
- ❑ **WARNING:** IF SWALLOWED: Rinse mouth. **DO NOT** induce vomiting. Immediately call a POISON CENTRE or doctor.
- ❑ **WARNING:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse cautiously with water for several minutes
- ❑ **WARNING:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- ✓ Wash contaminated clothing before reuse.
- ✓ Specific treatment: Contact a POISON CENTRE or doctor.
- ✓ Store locked up.
- ✓ Dispose of contents and containers in accordance with national and local regulations.

2. INTRODUCTION

The Sealey CC230V uses cutting edge HHO engine cleaning technology. Each unit uses electrolysis to split water molecules into the composite elements of oxygen and hydrogen to produce oxyhydrogen or HHO gas. Simple to use machine feeds HHO into the engine through the vehicle air inlet breaking down any carbon build up on its way. Carbon builds up layer on layer when fuel combusts in the engine cylinders which can affect the smooth running of any engine. Removing carbon build up from the engine can improve performance, raise mpg, reduce emissions and oil consumption. The CC230V runs on tap water with no expensive refills making the process a great revenue boost for any workshop. Fitted with CAMS (Charge Activated Machine Shutdown) designed to safely cut-out if the engine stops running during treatment. Also meaning the unit can be left to run without supervision allowing the user to continue with other work.

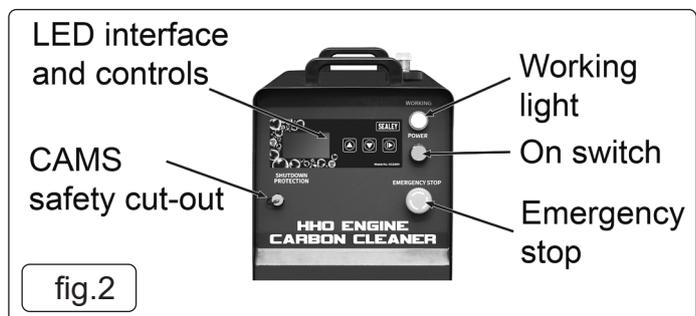
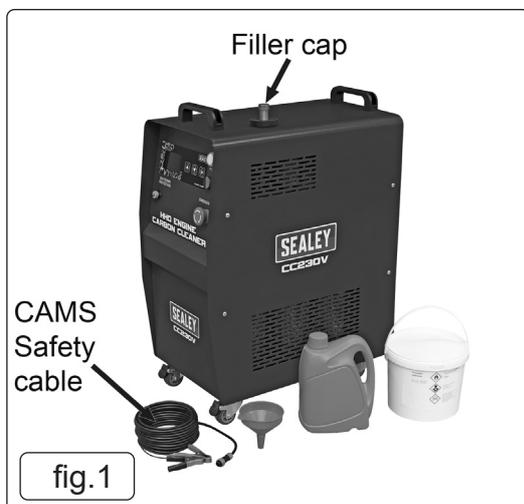
3. SPECIFICATION

MODEL NO:**CC230V**
Cells..... 3 x 3 Raid Technology (Generators)
Dimensions (W x D x H).....350 x 650 x 860mm
Flow Rate:.....600L/hr
Power..... 1.4kW
Supply..... 230V~50Hz
Power..... 1.4kW
Tank Size 8L



4. ASSEMBLY

- 4.1. Remove parts from packaging and check to ensure they are complete and not damaged.
- 4.2. Connect CAMS safety cable (fig.1) to the socket on the control panel (fig.2).
- 4.3. Connect the gas hose and tap assembly on rear face of unit (fig.3) if not already fitted.
- 4.4. Check liquid level indicator on rear face of unit (fig.3). If level is at the lower level, the tanks need topping up.
- 4.5. To top up, unscrew filler cap (fig.1) Use a funnel and slowly and carefully add 100 ml of 1:10 electrolyte solution at a time until the level is approximately 1/3rd distance from the top of the liquid level indicator. **DO NOT** overfill the unit.
- 4.6. Avoid creating air locks by adding the solution very slowly. If air locks are discovered, gently rock the unit to rectify.
- 4.7. Ensure the filler cap is re-fitted properly to avoid any leakage.

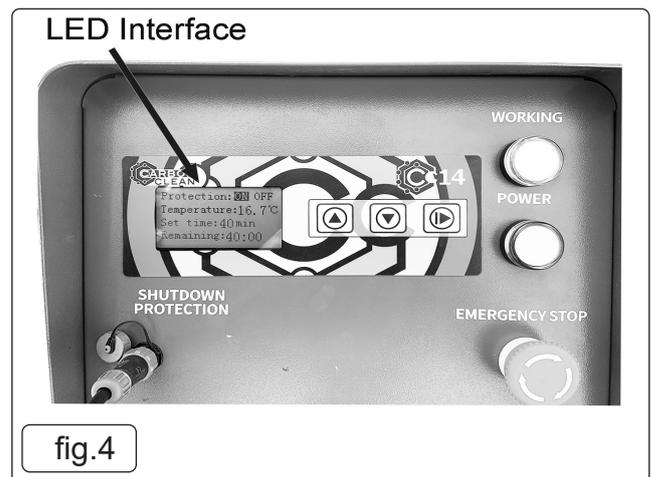
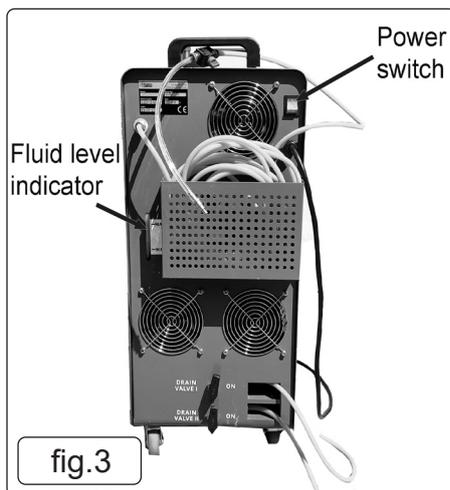


5. OPERATION

- 5.1. Check the level of the electrolyte and add electrolyte solution if required (see section 4 and fig.3 - Fluid level indicator).
 - 5.2. Ensure that the unit is set to OFF before plugging into mains power supply.
 - 5.3. Ensure that CAMS safety cable (fig.1) is fitted to the vehicle battery (red clip to positive terminal, black clip to negative terminal).
 - 5.4. Place gas outlet pipe into air filter inlet or another area of negative pressure.
 - 5.5. Connect the unit to the mains power and turn it on (fig.3).
 - 5.6. When first turned on, a default 'Home Screen' is displayed (fig.4).
 - 5.7. To set the time for cleaning, choose the "SET TIME" option and select time by using the UP / DOWN arrow keys. Once selected press the right arrow  to set the displayed value.
- NOTE:** Recommended cleaning time for 2L and smaller engines is 30 mins and for 2L or greater 60 mins.
- 5.8. Operate LED interface to ensure Shutdown Protection on.
 - 5.9. While the unit is running, the green WORKING light will flash intermittently.
 - 5.10. To begin cleaning, start the engine and open the blue gas control valve on the delivery hose.
 - 5.11. Select the right arrow  to start generating gas.
- NOTE:** To test that gas is being produced, open the blue gas control valve on the delivery hose and place the end of the hose into a clear container of water. Bubbles in the liquid will indicate a gas flow.
- 5.12. Ensure gas hose is delivering gas to an area of negative pressure (see section 5.4).
 - 5.13. During gas generation, keep vehicle engine running and ensure that air con, stereo and lights are switched off.
 - 5.14. The machine will sound an alarm tone when the specified cleaning cycle time completes.
 - 5.15. Close the gas control valve immediately and disconnect the CAMS systems clips from the vehicle battery.
 - 5.16. After cleaning cycle is complete, slowly increase the engine revs to 3000rpm for 3 minutes or take the vehicle for a short run during which the engine can be put under load. NOx can increase during the cleaning process so an emissions test should not be carried out until after the vehicle has been for at least a 10 mile road test.

6. TROUBLESHOOTING

- 6.1. If engine stops or stalls, close the gas valve and switch off the gas generation process by disconnecting the CAMS clips from the battery. **DO NOT** restart the vehicle for 5 minutes.
- 6.2. In event of gas production decline, check that the gas hose is not blocked and check and top-up / replace the electrolyte if low level.



Parts support is available for this product. Please email sales@sealey.co.uk or telephone 01284 757500



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.

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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