

## **INSTRUCTIONS FOR:**

# SPACE WARMER PROPANE HEATERS

MODEL No's: LP200.V4, LP300.V5 and LP400

Thank you for purchasing a Sealey Propane Heater. 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 AND CAUTIONS. USE THIS 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. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.

# **SAFETY INSTRUCTIONS**

#### **PLUG & MAINS POWER SUPPLY** 1.1.

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a Residual Current Device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your Sealey dealer.

You must also read and understand the following instructions concerning electrical safety.

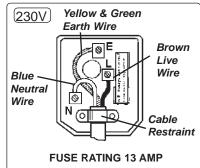
NOTE: 110 volt heaters are usually operated by connecting to a transformer or a generator. Check to ensure all supply equipment is compatible with the rating of the heater.

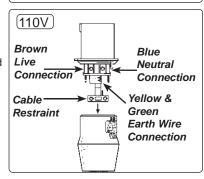
- 1.1.1. The Electricity at Work Act 1989 requires all portable electrical appliances, if used on business premises, to be tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least
- The Health & Safety at Work Act 1974 makes owners of electrical appliances responsible for 1.1.2. the safe condition of those appliances and the safety of the appliance operators. If in any doubt about electrical safety, contact a qualified electrician.
- 1.1.3. Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply. See 1.1.1 and 1.1.2 and use a Portable Appliance Tester.
- Ensure that cables are always protected against short circuit and overload. 1.1.4.
- Regularly inspect power supply cables and plugs for wear or damage and check all connections 1.1.5. to ensure that none are loose.
- 1.1.6. Important: Ensure that the voltage marked on the appliance matches the power supply to be used and that the plug is fitted with the correct fuse - see fuse rating on right.
- 1.1.7. Important: For use with a 110 volt supply ensure that the 110 volt transformer or generator is adequately rated.
- 1.1.8. **DO NOT** pull or carry the appliance by the power cable.
- 1.1.9. **DO NOT** pull the plug from the socket by the cable.
- 1.1.10. DO NOT use wom or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician. When an ASTA/BS approved UK 3 pin 13 amp plug or 110 volt plug is damaged, cut the cable just above the plug and dispose of the plug safely. Fit a new plug according to the following instructions (UK only - see diagrams on right).
  - 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'.
  - d) After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable outer insulation extends beyond the cable restraint and that the restraint is tight.
- 1.1.11. If an extension reel is used it should be fully unwound before connection. A reel with an RCD fitted is preferred since any appliance plugged into it will be protected. The cable core section is important and should be at least 1.5mm<sup>2</sup>, but to be absolutely sure that the capacity of the reel is suitable for this product and for others which may be used in the other output sockets, we recommend the use of 2.5mm<sup>2</sup> section cable.

#### **GENERAL SAFETY** 1.2.

- □ WARNING! Disconnect heater from mains supply before servicing or performing maintenance. Replace or repair damaged parts. Use genuine parts only. Unauthorised parts may be dangerous and will invalidate the warranty.
- WARNING! NOT to be used for the heating of habitable areas of domestic premises: for use in public buildings, refer to national regulations.
- Store gas cylinders in accordance with regulations applicable to such appliances.
- Ensure that nothing stands or passes in front of the heater. Mandatory minimum distance from the heater is 1 metre.
- Use the supplied pressure regulator only.
- Ensure continuous ventilation is provided to the heater operating area. A ventilation opening must run to the outside of the premises where the heater is to be operated. The opening must be 100cm² for every kW and must also be set at an equal distance from the upper and lower parts of the heater operating area.
- WARNING! If the heater is used for prolonged periods at maximum power, ice may form on the propane cylinder. This is due to excessive evaporation. In such a case **DO NOT** use the heater to de-ice the cylinder.
- DO NOT use the heater if damaged. Take immediate action to repair or replace damaged parts. Use an authorised service agent only.
- DO NOT allow untrained persons to ignite the heater.
- **DO NOT** operate the heater without the cover.
- DO NOT exceed the 100W/m<sup>3</sup> limit considering the volume of the empty operating location.
- **DO NOT** use a naked flame to try and ignite the heater.
- DO NOT use the heater near inflammable, combustable or explosive materials liquids, solids or gases.
- DO NOT leave the heater unattended whilst in use.
- DO NOT obstruct the air inlet and outlet sections of the heater. Keep immediate area clean and tidy.
- DO NOT point the heater towards the gas cylinder.
- Keep the heater clean and in good working order.
- Ensure that the heater is correctly turned off and the gas source isolated, when not in use.
- When not in use for any length of time, store heater in a safe, dry, childproof location.





## 2. SPECIFICATIONS

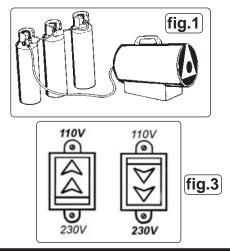
Propane heaters are fan assisted and fitted with a piezoelectric ignition system for trouble-free starting. Supplied with a propane gas regulator. These heaters are tested and certified to CE standards by the German DVGW test house, and are safe for use in the UK. All regulators are Calor approved.

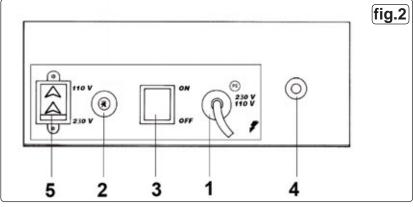
Output:       23-55kW       33-80kW       35-109kW         Output:       78,500-187,800Btu/hr       112,700-273,150Btu/hr       119,500-372,200Btu/hr         Airflow:       1,400mtr³/hr       2,100mtr³/hr       3,260mtr³/hr         Fuel Consumption:       1.64-3.93kg/hr       2.36-5.72kg/hr       2.53-7.77kg/hr         Electrical Input:       110/230V       110/230V       110/230V         Length x Width x Height:       558 x 455 x 546mm       775 x 455 x 546mm       1,015 x 435 x 610mm         Fuel:       Propane       Propane       Propane         Heated Volume:       41,742ft³       60,716ft³       82,725ft³         Heated Volume:       1,182mtr³       1,720mtr³       2,343mtr³	Model No:	LP200.V4	LP300.V5	LP400
Airflow:       1,400mtr³/hr       2,100mtr³/hr       3,260mtr³/hr         Fuel Consumption:       1.64-3.93kg/hr       2.36-5.72kg/hr       2.53-7.77kg/hr         Electrical Input:       110/230V       110/230V       110/230V         Length x Width x Height:       558 x 455 x 546mm       775 x 455 x 546mm       1,015 x 435 x 610mm         Fuel:       Propane       Propane       Propane         Heated Volume:       41,742ft³       60,716ft³       82,725ft³	Output:			35-109kW
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	Fuel:	Propane	Propane	Propane
<b>Heated Volume:</b>	Heated Volume:	41,742ft <sup>3</sup>	60,716ft <sup>3</sup>	82,725ft <sup>3</sup>
	Heated Volume:	1,182mtr <sup>3</sup>	1,720mtr <sup>3</sup>	2,343mtr <sup>3</sup>

## 3. INSTALLATION

Note: If a small gas cylinder is used, the heater may not operate at maximum efficiency. It is recommended to use two or more cylinders linked in parallel, to achieve maximum continuous efficiency (fig.1).

- 3.1. Setting heater supply voltage.
- Locate the voltage selection switch (fig.2.5). 3.1.1.
- If the correct supply voltage is not selected, remove the cover, select the required voltage position and refit the cover panel (fig. 3). 3.1.2.
- 3.2.
- 3.2.1. Check heater and gas cylinder to ensure that they are both in good condition. If not, stop and contact your supplier immediately.
- Site the heater and gas cylinder in the location to be heated.
- Connect the heater to an electrical supply outlet, ensuring that the machine is correctly earthed. See safety instructions. 3.2.3.
- Connect the gas supply hose to the excess flow valve, connect the valve to the pressure regulator, and connect the regulator to the gas cylinder. Note: Left hand threads. Connect the other end of the supply hose to the heater. Ensure all connections are tight.
- Gradually open the tap of the gas cylinder. Check hose and all fittings for gas leaks. 3.2.5.
- WARNING! DO NOT USE A NAKED FLAME! To check for leaks, we recommend the use of a foamy soap solution.





- 1 Power Supply Cable
- 2 Piezo Ignition Button
- 3 On/Off Switch
- 4 Gas Valve Button
- 5 Voltage Selection Switch

## **OPERATION**

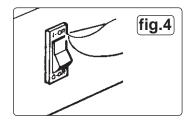
IMPORTANT: To ensure continuous ventilation to the heater area, a ventilation opening must connect to the outside of the premises where the heater is to operate. The opening must be 100cm² for every kW, and must be set at an equal distance from the upper and lower parts of heater operating area.

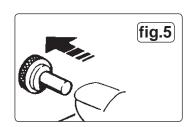
#### **Switching Heater On** 4.1.

- 4.1.1. Turn the On/Off switch to the 'ON' position (fig.4) and check that the fan starts running.
- Push the gas valve button in and hold (fig.5), then press repeatedly on the Piezo Ignition Button (fig.6) until the flame ignites. 4.1.2.
- When the flame has ignited and the heater has started, keep the gas valve button pushed in for a further 10 seconds before releasing it. 4.1.3.
- 4.1.4. If the heater stops when the gas valve button is released, leave the fan on, but wait for one minute before repeating the ignition sequence. Hold the gas valve button in for 15 seconds this time, before releasing.
- 4.1.5. The heat output is controlled by adjusting the gas pressure via the regulator. Turn the regulator knob anti-clockwise to reduce the gas pressure / heat, and clockwise to increase the gas pressure / heat.

#### **Switching Heater Off** 4.2.

Shut off the gas cylinder tap. Allow the fan to continue running until the flame shuts down, then turn the On/Off switch to the 'OFF' 4.2.1. position. Isolate the heater from the electrical supply.







UMRNING! If the flame shuts down during operation, before repeating the ignition sequence, make sure that the fan is not jammed, and the air inlet and outlet are completely free of obstructions. If it is due to overheating, the cause of the problem must be determined and corrected before repeating the ignition procedure.

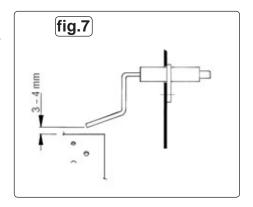
□ **WARNING!** If for any reason, there is a sudden increase in gas flow (a ruptured supply pipe for instance), the Excess Flow Valve will shut and cut off the gas supply. Close the tap on the gas cylinder and investigate the problem and resolve it. Re-open the tap on the gas cylinder and reset the Excess Flow Valve by pressing on the push-button for a few seconds. Carry out the ignition sequence to re-light the heater.

## 5. COOL AIR FAN

- The heater may also be used as a cool air fan, as follows:
- **5.1.** Remove the gas supply hose and plug the heater into the electrical power supply.
- 5.2. Switch on the fan. The unit will now blow out cool air only.

## 6. MAINTENANCE

- WARNING! Before commencing service or maintenance, disconnect the heater from the electrical and gas supplies. Use authorised parts only. Unauthorised parts may be dangerous and will invalidate the warranty.
  Should the heater require service or maintenance, a suitably qualified engineer should carry this out or contact your local Sealey service agent.
- **6.1.** Check the gas supply hose condition and change if necessary.
- **6.2.** Carefully clean the fan blade and inside the heater unit with compressed air.
- ▲ Caution: Wear safety goggles to perform this operation.
- **6.3.** Check the starting electrode gap (fig.7).
- **6.4.** Check the ignition unit, safety thermostat, and thermocouple condition and ensure that they are clean.



## 7. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION	
The fan motor does not work	There is no electrical supply.     The motor has locked.	Check mains power supply, wire, plug, fuse.     Unlock the motor with an appropriate tool.	
The ignitor does not spark	Electrode has the wrong gap.     Faulty connection.	Check and reset the electrode to the correct position (fig.7).     Check and connect correctly the ignitor and the electrode.	
No gas flow to the burner	The cylinder gas tap is closed.     The cylinder is empty.     Gas leaks from the supply.	Open the gas tap.     Replace the cylinder.     Remove and clean the nozzle, check for leaks by using a foamy soap only - <i>DO NOT USE FLAME</i> to find leak.	
The burner starts, but it stops as the gas valve is released.	The thermocouple is not warm enough.     The safety override has activated because the fan does not work.	Repeat the starting operation, keeping the button pushed for a longer time     See above "Fan motor does not work"	
The heater stops during operation	Excessive gas supply.     Insufficient air flow.     Insufficient gas due to ice formation on the cylinder.     Excess flow valve has shut.	Check the pressure regulator, and replace if necessary.     Check that the motor is working correctly.     Check and if necessary use a larger gas cylinder or multiple cylinders connected in parallel.     Investigate and rectify fault, reset valve before restarting.	

## ☐ WARNING! Regarding Air Contaminants.

Air contaminants taken into the heater will damage the unit, cause health problems and safety issues.

Example: Body shop filler dust and overspray dust will clog the burner diffuser, contaminate the combustion chamber and damage the internal parts of the heater. If contaminants are present the heater must be supplied with ducted clean air.

Please note that any parts damaged by filler dust or overspray dust will not be covered by warranty. Additionally a cleaning charge will be made for any heaters damaged by filler dust or overspray dust.



## **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.



When the product is no longer required, it must be disposed of in an environmentally protective way.

**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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