

Thank you for purchasing a Sealey Diesel 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.**

## 1. SAFETY INSTRUCTIONS

### 1.1. ELECTRICAL SAFETY

**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.

- 1.1.1. The Electricity at Work Act 1989 requires that all portable electrical appliances, if used on business premises, are tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.
- 1.1.2. The Health & Safety at Work Act 1974 makes owners of electrical appliances responsible for 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.
- 1.1.4. Ensure that cables are always protected against short circuit and overload.
- 1.1.5. Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that none is 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 at right.
- 1.1.7. DO NOT pull or carry the appliance by the power cable.
- 1.1.8. DO NOT pull the plug from the socket by the cable.
- 1.1.9. DO NOT use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician. When a BS 1363/A UK 3 pin 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).

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.

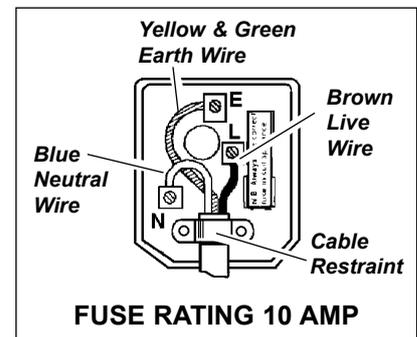
Double insulated products, which are always marked with this symbol , are fitted with live (brown) and neutral (blue) wires only. To rewire, connect the wires as indicated above -

DO NOT connect either wire to the earth terminal.

- 1.1.10. Products which require more than 13 amps are supplied without a plug. In this case you must contact a qualified electrician to ensure that a suitably rated supply is available. We recommend that you discuss the installation of an industrial round pin plug and socket with your electrician.
- 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.

### 1.2. GENERAL SAFETY

- ✓ Check that the heater is in sound condition and good working order. *Take immediate action to repair or replace damaged parts.*
- ✓ Use recommended parts only. *Unauthorised parts may be dangerous and will invalidate the warranty.*
- ✓ Use only diesel to fuel your heater, in accordance with instructions contained in this manual.
- WARNING!** Only use heater in well ventilated areas. Ensure continuous ventilation is provided to the heater operating area via windows and doors etc.  
If people are **not** required to be present in the heated area, the *volume of air to be heated (m<sup>3</sup>)/heat output (kW)* ratio must be at least 10:1. People must be properly advised not to remain in the heated area for prolonged periods.  
If people **are** required to be present in the heated area, the *volume of air to be heated (m<sup>3</sup>)/heat output (kW)* ratio must be at least 30:1. Ventilation must be to the outside of the premises in which the heater is to be operated. The total open area (m<sup>2</sup>) must be at least 0.003 times the total heat output (kW). The volume concentration of O<sub>2</sub> (oxygen) in the heated room, must always remain above 17%.  
Keep the heater a minimum of 3 meters from any walls and objects.
- ✓ **WARNING! DO NOT** use the heater near flammable material, liquids, solids, gases or compressed gas cylinders and the like.
- x **DO NOT** use the heater in closed rooms, living areas, basements or below ground level.
- x **DO NOT** allow untrained persons to operate the heater and **DO NOT** operate the heater without the cover.
- x **DO NOT** use an external fuel tank. Only use that which is part of the heater.
- x **DO NOT** leave the heater unattended when in use. Switch the heater off and unplug from the mains before leaving work area.
- x **DO NOT** stand or place **any** object less than 3 meters from the heater output.
- x **DO NOT** obstruct the air inlet and outlet sections of the heater.
- x **DO NOT** operate the heater when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- x **DO NOT** over-fill the fuel container. Wipe up any spilt fuel immediately.
- x **DO NOT** touch the heater outlet or cone when first switched off as these are **VERY** hot and will take time to cool.
- x **DO NOT** switch the heater off by disconnecting it from the mains. **ALWAYS** set the switch on the burner to the "OFF" position before disconnecting from the mains.
- ✓ Ensure that the heater is correctly turned off when not in use and store in a safe, dry area, out of reach of children.



## 2. SPECIFICATION

Diesel fuelled infrared heater for indoor (well ventilated) and outdoor applications. Combustion gases are catalysed so the heater requires no flue or exhaust pipe. Integral fuel tank and large wheels make the unit fully manoeuvrable. Tank capacity is 51 litres, giving approx. 14 hours operation per full tank. Stainless steel combustion chamber may be adjusted, in the vertical plane, through 40° to direct heat as required.

Output:	38.3kW
Power Supply:	230V 50Hz 185W
Fuel/Fuel consumption:	Diesel Oil / 3.0kg/hr
Tank capacity:	51ltr
Min/Max. Height:	915 / 1115mm
Width:	640mm
Length:	955mm
Weight:	98kg

## 3. INSTALLATION

Follow the safety instructions outlined in section 1

- 3.1 Fill the fuel tank with clean, water-free diesel.
- 3.2 Connect to a 230V 50Hz earthed electrical outlet (in compliance with local regulations).
- 3.3 At extremely low temperatures, ignition may prove difficult. Check the tank, connections and filter for paraffin formation and mix the diesel oil with 10% kerosene.
- 3.4 To direct the infrared radiation, loosen the clamping levers on both sides, position the radiating cone as required and tighten the clamping levers.



## 4. OPERATION

- 4.1 To start, set the switch to ON
- 4.2 To stop, set the switch to OFF
- 4.3 Ignition does not take place immediately but after a preheating procedure followed by a pre-purge time of around 30 seconds. Should no fuel flow to the burner within 4 seconds, the heater switches automatically to lock-out mode. In this event, check and eliminate the possible causes of lock-out (see section 6) then press the RESET button to restart the heater. Should the heater remain inoperative, check that the front radiator is not directly exposed to intense lights (sunlight, lamps etc) as this might interfere with the operation of the burner control unit.

## 5. MAINTENANCE

- 5.1 Switch off, unplug and allow the heater to cool and close diesel shut-off valve before performing any form of maintenance.
- 5.2 Ensure that the unit is checked and the burner calibrated by a qualified person at least once a year.
- 5.3 **General Maintenance**
  - 5.3.1 Replace the fuel filter cartridge at least every 200-300 operating hours, but sooner if you see water or dirt particles in the filter glass.
  - 5.3.2 Should fuel remain unused in the tank for an extended period of time and become contaminated with dirt and/or water, empty the tank and refill with clean diesel.

## 6. TROUBLE SHOOTING

Malfunction	Possible causes	Remedy
The heater does not start, when the switch is set to ON	a) no electrical supply b) defective ON/OFF switch c) burner lock-out d) defective motor/capacitor	a) check mains, switch and fuses b) replace ON/OFF switch c) reset diesel burner. If lockout repeats immediately, leave 4-5 mins and reset again. d) check motor/capacitor, replace if necessary .
The heater starts but a malfunction immediately occurs	a) no diesel in the tank b) air in the fuel circuit c) diesel filter clogged d) diesel burner lock-out	a) refill tank with diesel b) check diesel circuit connections c) replace filter cartridge d) see operating instructions for burner.
The heater operates but the combustion is smoky	a) blocked nozzle b) filter is clogged c) water in the fuel d) paraffin formation in the main filter e) not enough fuel in the tank f) air suction in the oil line g) defective solenoid valve	a) replace nozzle b) clean filter c) fill tank with clean diesel d) replace diesel preheater e) fill tank completely f) tighten connections in the diesel circuit g) see operating instructions for burner
The burner fan continues to run even though the heater has been switched off and cooled down	a) defective post-ventilation relay	a) replace post-ventilation relay

**Declaration of Conformity** We, the sole importer into the UK, declare that the products listed below are in conformity with the following EEC standards and directives

**INFRARED DIESEL HEATER 38kW**  
Model: IR40  
Machinery Directive 98/37/CE  
Low Voltage Directive 73/23/CEE  
EMC Directive 89/336/CEE  
CE Marking Directive 93/68/EEC



The construction file for these products are held by the Manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.

Signed by Mark Sweetman

28th April 2006

For Jack Sealey Ltd.  
Sole importer into the UK  
of Sealey Power Products

**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 catalogue and latest promotions call us on 01284 757525 and leave your full name, address and postcode.

	<b>Sole UK Distributor</b> Sealey Group, Bury St. Edmunds, Suffolk.	01284 757500 01284 703534	<a href="http://www.sealey.co.uk">www.sealey.co.uk</a> <a href="mailto:sales@sealey.co.uk">sales@sealey.co.uk</a>
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IR40 - 1 - 280406

### Get In Touch

Call: 0845 6880112  
 Email: [info@adremit.co.uk](mailto:info@adremit.co.uk)

### Our Address

Puravent, Adremit Limited, Unit 5a, Commercial Yard,  
Settle, North Yorkshire, BD24 9RH