

Thank you for purchasing a Sealey 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

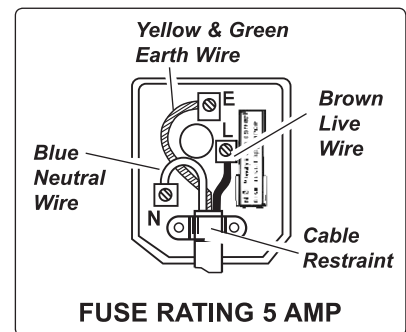
1.1. ELECTRICAL SAFETY

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 1.5mm², 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 2.5mm² section cable.



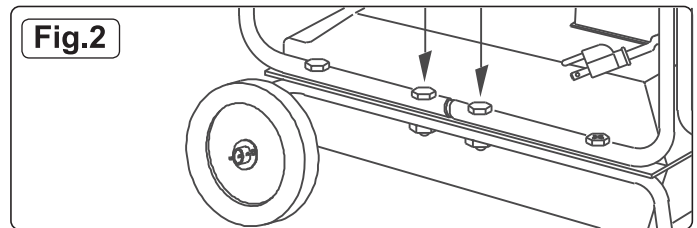
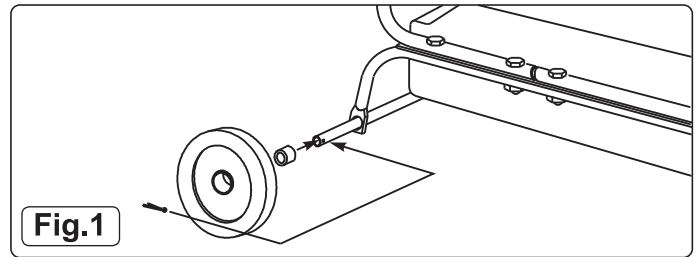
1.2. GENERAL SAFETY

- ✓ 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.*
- 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 (mtr³)/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 (mtr³)/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 (mtr²) must be at least 0.003 times the total heat output (kW). The volume concentration of O₂ (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 safety guard.
- 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 in use or for a period of time after 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.
- x **DO NOT** unplug the heater to turn it off, use the on/off switch.

2. SPECIFICATION

Infrared heater suitable for well ventilated indoor applications. Clean burning unit operates on paraffin, kerosene or diesel. Unit produces an impressive 125,000 Btu/hr. 60ltr Tank allows approximately 16.5hrs running time, making this unit extremely economical. Complies with rigorous standards and is fitted with a safety cut-out.

| Model | IR37 |
|-----------------------------------|------------------------------|
| Rating BTU/hr | 95,000 / 125,000 |
| Fuel | Paraffin / Kerosene / Diesel |
| Running Time Per Filling (Approx) | 22 / 16.5hr |
| Fuel Tank Capacity (Litres) | 60 |
| Output | 38kW |
| Voltage / Hz | 230 / 50 |
| Amps | 5 |
| Size (cm) | 73.4 x 70.6 x 98 |
| Net Weight (Kg) | 38 |
| Heated Area | 708mtr ³ |



3. ASSEMBLY

- 3.1 Slide axle through Wheel Frame and attach wheels, washers and cotter pins. See Fig.1.
- 3.2 Place main structure on Wheel Frame and fasten with nuts and bolts provided. See Fig.2.
- 3.3 Attach Safety Guard to front of heater with bolts provided. See Fig.3.

4. OPERATING CONDITIONS

4.1 Theory of Operation

- 4.1.1 **Fuel System:** This heater is equipped with an air pump that operates off of the electric motor. The pump forces air through the air line connected to the fuel tank, drawing fuel to the nozzle in the burner head. Air also passes through the nozzle where it mixes with the fuel and is sprayed into the combustion chamber in a fine mist.
- 4.1.2 **Quick-Fire Ignition:** A transformer sends high voltage to a two pronged spark plug. The spark ignites the fuel/air mixture as it is sprayed into the combustion chamber.
- 4.1.3 **Air System:** A fan is turned by the heavy duty motor, which forces air around and into the combustion chamber, where it is super-heated and forced out the front of the chamber.
- 4.1.4 **Electrical System Protection:** The heater's electrical system is protected by a circuit breaker that protects the system components from damage. If the heater fails, check the fuse first, and replace if necessary.
- 4.1.5 **Flame Sensor:** The heater uses a photocell to see the flame in the combustion chamber. Should the flame extinguish, the sensor will stop electrical current and the heater will shut off.
- 4.1.6 **Tip-over Sensor:** The heater uses a tip-over sensor.

4.2 Fuel

The IR37 will operate with paraffin, kerosene or diesel fuel.

- 4.3 When used in the construction or agricultural industries ensure that the safety regulations in force are adhered to with regard to distances from flammable materials and any other specified substances.

WARNING! Air contaminants taken into the heater may affect the heat output, damage the unit and may cause health problems. Example: Bodyshop filler dust/paint overspray will damage the motor bearing, clog the filter and compressor and contaminate the combustion chamber causing flame flutter and health hazards. Please note that any parts damaged by filler dust/paint overspray will not be covered by warranty. Additionally, a cleaning charge will be made for any heaters damaged by filler dust/paint over spray.

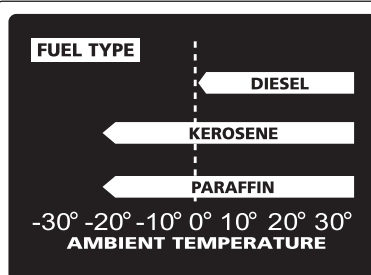
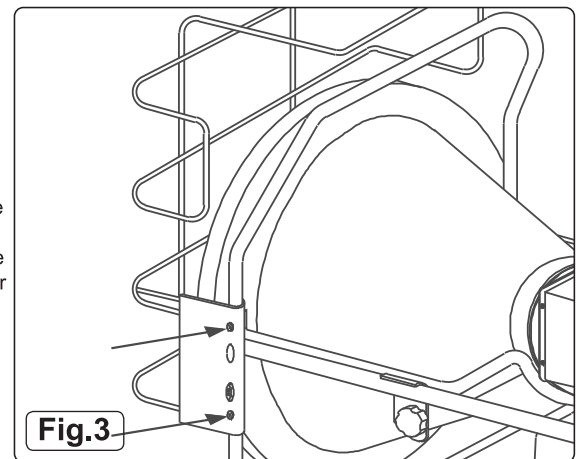
4.4 Ventilation

- WARNING! Only use the heater in well ventilated areas. Careful consideration must be given to the placing of the heater to provide safe and comfortable heating. Ensure continuous ventilation is provided to the heater operating area. A ventilation opening must run to the outside of the premises in which the heater is to be operated.**

The IR37 requires a fresh air opening of at least 0.91m².

For Example:

- A two car garage door should be open at least 15cm.
- A single car garage should be open at least 22.5cm.
- Two 82cm windows open at least 38cm.



Although our heaters operate with diesel fuel, when the temperatures are below 0°C diesel additives are required to maintain the diesel's viscosity. Typically diesel can cloud in freezing conditions and will start to gel. You will need additives for your fuel in these conditions.

Kerosene/Paraffin does not start to gel until the ambient temperature is around (-40°C).

5. OPERATING INSTRUCTIONS

5.1 To Start the Heater

5.1.1 Fill the tank with approved fuel until fuel gauge points to 'F'.

5.1.2 Be sure fuel cap is secure.

5.1.3 Plug the power cord into a suitable power socket. If using an extension lead see Section 1.1.10.

5.1.4 Push the Operation switch to either the 'LO' or 'HI' position. The power indicator lamp will light and the heater will start. When switching from one heat level to another during operation it is normal for the heater to cease operation and go into the misfire sequence. If this happens, simply switch to 'OFF' and immediately to the desired heat level - 'LO' or 'HI'.

Note: The electrical components of this heater are protected by a fuse mounted in the PC board. If the heater fails to fire, check this fuse first, and replace if necessary. Also check the power source to be sure that the proper voltage is being provided to the heater.

5.2 Tilting Feature

5.2.1 Loosen the hand screws on the main frame of the heater.

5.2.2 Position the heater in the desired position.

5.2.3 Tighten the hand screws to secure the heater in that tilted position.

5.3 To Stop the Heater

5.3.1 Push the Operation switch to 'OFF' position. Combustion will stop, and the Cooling Cycle (approx. 3 minutes in duration) will begin.

5.3.2 When Cooling Cycle is completed (fan stops running), it is safe to unplug the heater.

WARNING! Unplugging the heater before the Cooling Cycle has ended may cause overheating, possible damage to the heater and heat plate, and will void the warranty.

5.4 To Restart the Heater

5.4.1 Wait ten seconds after cooling cycle has completed.

5.4.2 Push the Operation Switch to 'LO / HI' position.

5.4.3 Be sure to follow all starting procedure precautions.

6. MAINTENANCE

NEVER OPERATE THIS HEATER UNATTENDED!

Use only original equipment replacement parts. The use of alternate or third party components can cause unsafe operating conditions, and will void your warranty.

We suggest following a maintenance schedule as follows:

6.1 Fuel/Fuel Tank - Flush every 200 hours of operation or as needed. Do not use water to flush the tank. Use fresh kerosene / paraffin only.

6.2 Filters - The Fuel Filter and Oil Filter should be cleaned at least twice per heating season by rinsing them in clean kerosene / paraffin. This procedure should also be followed if the fuel is found to be contaminated. (see Fig.4).

6.3 Nozzle - Nozzles should be cleaned or replaced at least once per heating season. This procedure should also be followed if the fuel is found to be contaminated.

6.3.1 To clean dirt from nozzle, blow compressed air through nozzle front. It may be necessary to soak nozzle in clean kerosene / paraffin to help loosen any particles (Fig.5).

6.4 Spark Plug - Clean and re-gap every 600 hours of operation, or replace as needed. (Fig.6).

6.4.1 After removing the Spark Plug, clean the terminals with a wire brush.

6.5 Photocell - The Photocell should be cleaned at least once per heating season or more depending on conditions.

6.5.1 Use a cotton swab dipped in water or alcohol to clean the lens of the Photocell (Fig.7, Fig.8).

6.6 Long Term Storage

6.6.1 Unscrew the Drain Bolt and drain fuel.

6.6.2 Using a small amount of kerosene / paraffin, rinse and swirl the kerosene / paraffin inside of the fuel tank. Empty the tank completely.

6.6.3 **Never store leftover kerosene / paraffin over the summer. Using old fuel can damage your heater.**

6.6.4 Store heater in a dry, well-ventilated area.

6.6.5 Be sure that the storage area is free of dust and corrosive vapours. Repack the heater in the original shipping material. Keep this User's Manual in an easily accessible place.

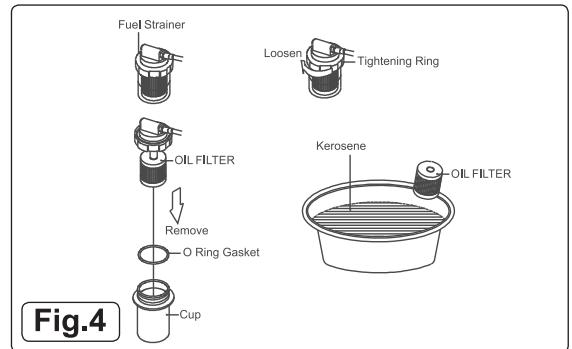


Fig.4

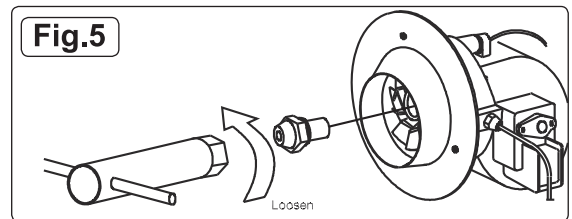


Fig.5

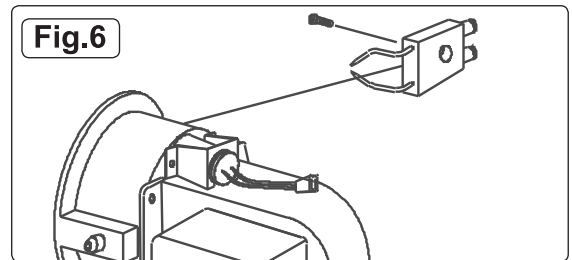


Fig.6

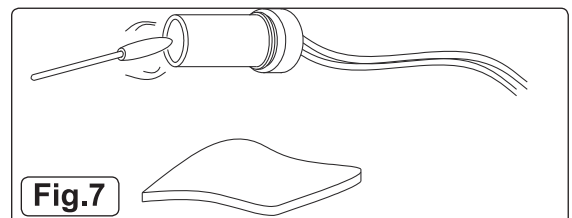


Fig.7

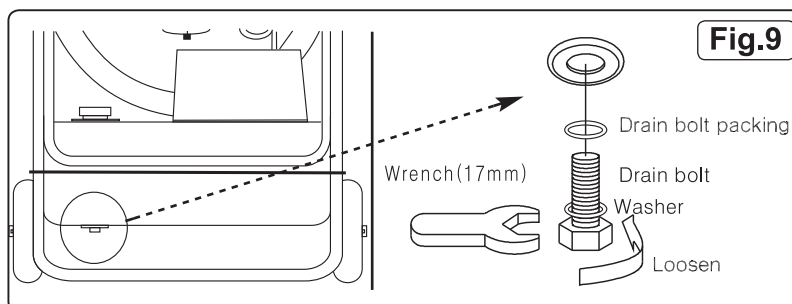


Fig.9

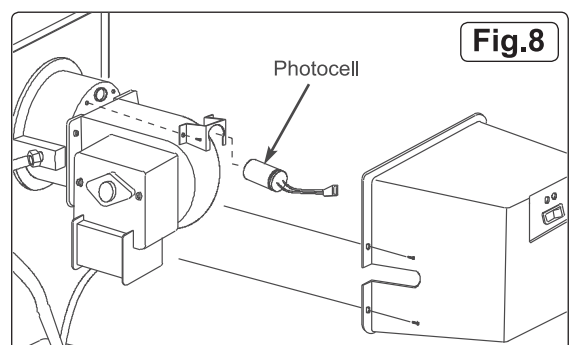
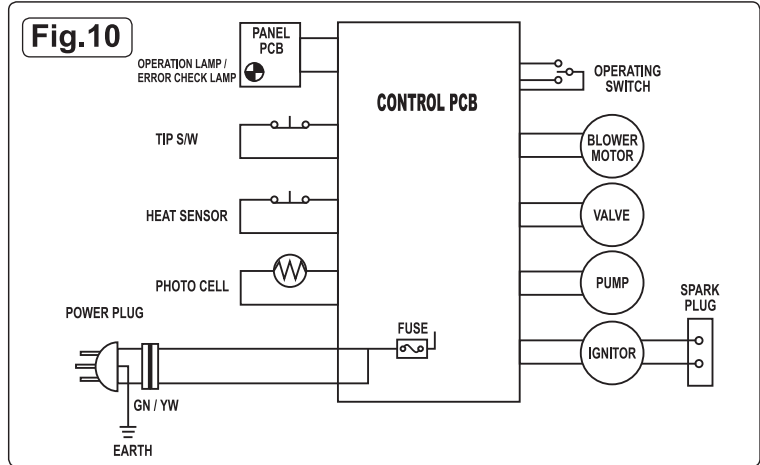


Fig.8

7. WIRING DIAGRAM



8. TROUBLE SHOOTING

| Problem | Possible Cause | Solution |
|---|---|--|
| Heater fires, but shuts down after a short period of time. | 1. Dirty Fuel Filter. | 1. Clean/replace Fuel Filter. |
| | 2. Nozzle Dirty. | 2. Clean/replace Nozzle. |
| | 3. Photocell Dirty. | 3. Clean/replace Photocell. |
| | 4. Photocell not installed properly. | 4. Adjust Photocell position. |
| | 5. Photocell Defective . | 5. Replace Photocell. |
| | 6. Improper electrical connection between Circuit Board and Photocell. | 6. Check wiring connections (See Wiring Diagram Fig.10). |
| | 7. Cooling Fan is obstructed. | 7. Check to be sure cooling fan is not obstructed. |
| Heater will not operate, or motor runs for short time. | 1. No fuel in fuel tank. | 1. Fill tank with fresh fuel. |
| | 2. Corroded Spark Plug or incorrect plug gap. | 2. Clean/replace Spark Plug. |
| | 3. Dirty Fuel Filter. | 3. Clean/replace Fuel Filter. |
| | 4. Dirty Nozzle. | 4. Clean/replace Nozzle. |
| | 5. Moisture in Fuel/Fuel Tank. | 5. Rinse out fuel tank with clean fresh fuel. |
| | 6. Improper electrical connection between Transformer and Circuit Board. | 6. Inspect all electrical connections. (See Wiring Diagram Fig.10). |
| | 7. Transformer Wires not connected to Spark Plug. | 7. Re-attach Transformer wires to Spark Plug. |
| | 8. Defective Transformer. | 8. Replace Transformer. |
| Fan does not operate when heater is plugged in and Power Switch is in the 'HI / LO' position. | 1. Broken electrical connection between Circuit Board and motor. | 1. Inspect all electrical connections on Wiring Diagram Fig.10. |
| | 2. Not enough amps available to power heater. | 2. Use a new extension cord or try another electrical socket. |
| Heater does not turn on and the lamp is not lit. | 1. Temperature limit sensor has overheated. | 1. Push Power Switch to 'OFF' and allow heater to cool for 5 minutes. Push Power Switch to back 'HI / LO'. |
| | 2. No electrical power. | 2. Check power cord and extension cord to insure of proper connection. Test power supply. |
| | 3. Fuse break down. | 3. Check/replace Fuse. |
| | 4. Improper electrical connection between Temperature Limit Sensor and Circuit Board. | 4. Inspect all electrical connections. (See Wiring Diagram, Fig.10). |
| Poor combustion and / or soot production. | 1. Pump Pressure. | 1. Be sure pump pressure is adjusted correctly. |
| | 2. Poor fuel quality. | 2. Be sure fuel is not old or contaminated. |

Declaration of Conformity

We, the sole importer into the UK, declare that the product listed below is in conformity with the following EEC standards and directives

INFRARED DIESEL HEATER 38kW
Model: IR37

2006/95/EC Low Voltage Directive
2004/108/EC EMC Directive
93/68/EEC CE Marking Directive
2002/95/EC RoHS Directive
2002/96/EC WEEE Directive



The construction file for this product is held by the manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.

Signed by Mark Sweetman

14th September 2009

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.



Sole UK Distributor
Sealey Group,
Bury St. Edmunds, Suffolk.



01284 757500



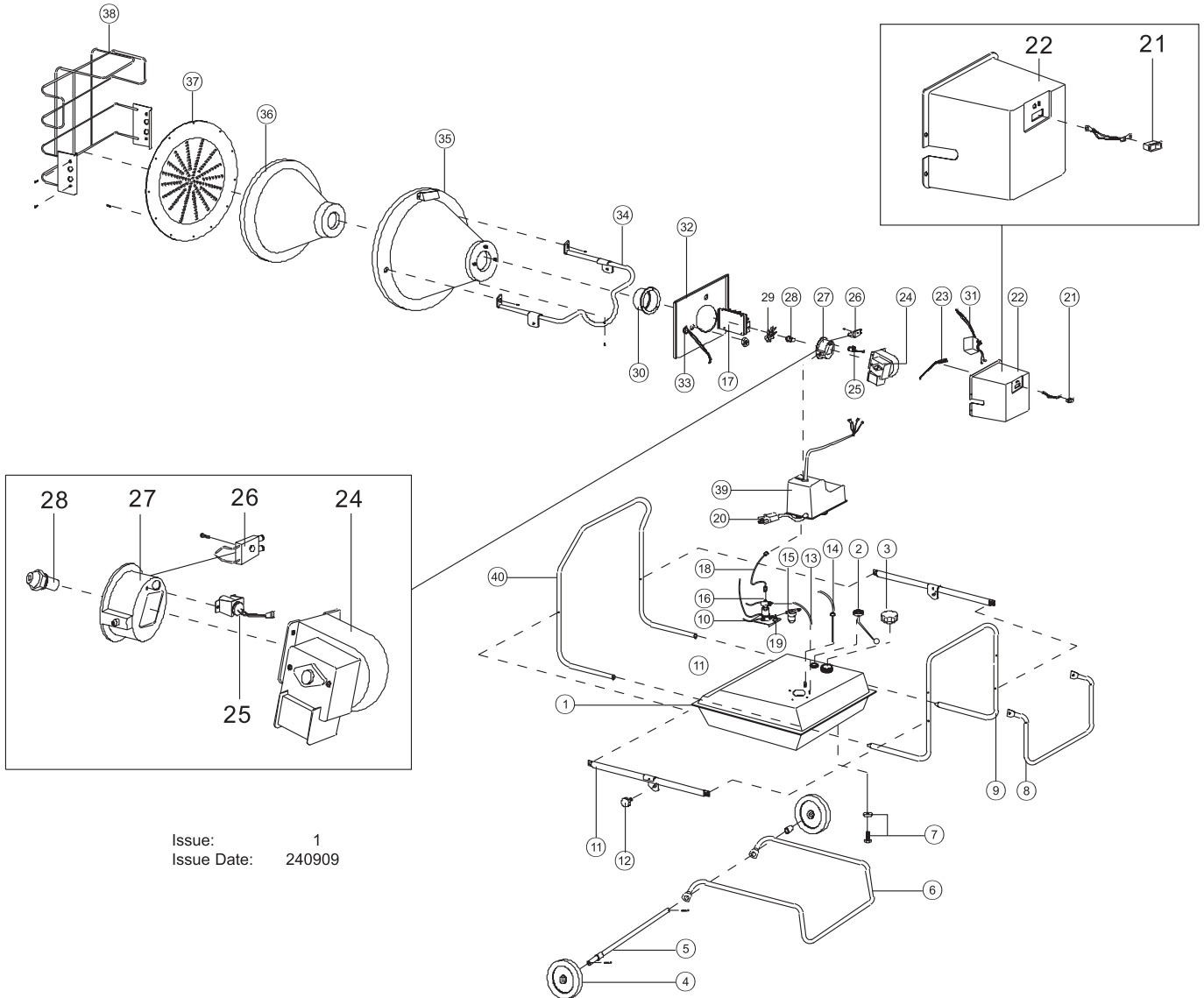
01284 703534



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sales@sealey.co.uk

PARTS FOR:
INFRARED PARAFFIN / DIESEL HEATER 38kW 230V
 MODEL: **IR37**



Issue: 1
 Issue Date: 240909

| ITEM | PART NO | DESCRIPTION | ITEM | PART NO | DESCRIPTION |
|------|--------------|------------------------|------|--------------|----------------------------|
| 1 | P72-001-0100 | FUEL TANK ASSEMBLY | 21 | P72-012-0100 | OPERATION SWITCH |
| 2 | P72-022-0100 | FUEL GAUGE ASSEMBLY | 22 | P72-013-0100 | BACK COVER |
| 3 | P75-002-0100 | FUEL CAP ASSEMBLY | 23 | P72-014-0100 | PANEL SUB-PCB |
| 4 | P72-041-0100 | WHEEL | 24 | P72-045-0110 | BLOWER MOTOR ASS'Y |
| 5 | P72-041-0200 | AXLE | 25 | P75-038-0210 | FLAME SENSOR ASS'Y |
| 6 | P72-042-0100 | WHEEL FRAME | 26 | P75-075-0200 | SPARK PLUG |
| 7 | P72-002-0200 | DRAIN BOLT | 27 | P72-035-0200 | BURNER BODY |
| 8 | P72-042-0200 | HANDLE | 28 | P72-036-0110 | NOZZLE |
| 9 | P72-042-0300 | REAR HANDLE | 29 | P72-035-0500 | BURNER BLADE |
| 10 | P72-025-0500 | SUPPORT PLATE | 30 | P72-036-0200 | DIFFUSION CAP |
| 11 | P72-035-0300 | FRAME SUPPORT | 31 | P75-025-0130 | IGNITOR |
| 12 | P72-042-0500 | HEIGHT ADJUSTMENT KNOB | 32 | P72-035-0100 | BURNER SUPPORT PLATE |
| 13 | P72-023-0100 | FUEL LINE | 33 | P72-040-0100 | TEMPERATURE SENSOR |
| 14 | P72-023-0200 | INTAKE FUEL LINE | 34 | P72-035-0600 | RADIANT CONE SUPPORT ASS'Y |
| 15 | P72-020-0100 | FUEL FILTER ASSEMBLY | 35 | P72-035-0610 | RADIANT CONE ASS'Y |
| 16 | P72-027-0150 | FUEL PUMP ASSEMBLY | 36 | P72-035-0620 | CERAMIC FIBER |
| 17 | P75-025-0410 | MAIN PCB ASSEMBLY | 37 | P72-012-0400 | HEAT PLATE |
| 18 | P72-023-0300 | INTAKE FUEL HOSE | 38 | P72-012-0200 | SAFETY GUARD |
| 19 | P75-051-0200 | TIP OVER SWITCH | 39 | P72-033-0100 | CONTROL BOX |
| 20 | P75-032-0190 | POWER CORD ASS'Y | 40 | P72-042-0400 | FRONT HANDLE |

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