



19KW INDUSTRIAL INFRARED DIESEL HEATER

MODEL NO: IR19

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 protective gloves



Always unplug before servicing and checking



Warning: Hot surfaces



Do not cover



Keep in dry area protect from rain



DANGER

Use in well ventilated areas

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.

Electrical safety information. It is important that the following information is read and understood:

- ✓ Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.
- ✓ Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that they are secure.
- 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.
- ✗ **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 is replaced immediately by a qualified electrician.

If the cable or plug is damaged during use, switch off the electricity supply and remove from use.

Ensure that repairs are carried out by a qualified electrician.

1.2. GENERAL SAFETY

- WARNING! THIS HEATER IS FOR PROFESSIONAL USE. IT HAS BEEN CAREFULLY DESIGNED FOR MOBILE AND TEMPORARY PROFESSIONAL APPLICATIONS. IT HAS NOT BEEN DESIGNED FOR DOMESTIC USE NOR FOR COMFORT HEATING AND SHOULD NEVER BE USED TO HEAT CLOSED ROOMS WITHOUT ADEQUATE VENTILATION.**
- WARNING!** This product is only suitable for well insulated spaces or occasional use.
- ▲ **DANGER!** Risk of carbon monoxide poisoning. Failure to provide proper ventilation could result in serious illness or death.
- ✓ 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.
- ✓ Only use diesel to fuel this heater, in accordance with instructions contained in this manual.
- ✓ Locate heater on a level and stable surface.
- 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 (m³)/heat output (kW) ratio must be at least 10:1 and people must be 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 (m³)/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 (m²) must be at least 0.003 times the total heat output (kW). The volume concentration of oxygen (O₂) in the heated room, must always remain above 17%.
- WARNING! DO NOT** use the heater near flammable material, liquids, solids, gases or compressed gas cylinders etc.
- ✗ **DO NOT** stand or place any object less than 3m from the heater output and keep the heater a minimum of 3m from any walls or objects.
- ✗ **DO NOT** use the heater in closed rooms, living areas, basements or below ground level.
- ✗ **DO NOT** allow untrained persons to operate the heater and **DO NOT** operate the heater without the safety guard.
- ✗ **DO NOT** move or handle the heater when hot, without wearing protective gloves. Never move the heater whilst it is operating.
- ✗ **DO NOT** leave the heater unattended for prolonged periods of time when in use. Switch the heater off and unplug from the mains before leaving work area.
- ✗ **DO NOT** fill the fuel tank whilst the heater is running or still hot. **DO NOT** over-fill the fuel container. Wipe up any spilt fuel immediately.
- ✗ **DO NOT** obstruct the air inlet (rear) and air outlet (front) of the heater and **DO NOT** use duct work in front or at the rear of the heater.
- ✗ **DO NOT** allow children or animals near the heater when in use, or whilst still hot.
- WARNING! RISK OF ELECTRIC SHOCK. DO NOT** expose the heater to water spray, rain, dripping water or wind.
- ✗ **DO NOT** operate the heater when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- ✗ **DO NOT** touch the heater outlet or cone when in use, or for a period of time after it's switched off, as these are VERY hot and will take time to cool down.

- ✗ **DO NOT** switch the heater off by disconnecting it from the mains. ALWAYS set the switch on the burner to the 'OFF' position and allow the cooling cycle to finish, before disconnecting from the mains.
- ✗ **DO NOT** use an external fuel tank. Only use the tank that is fitted to the heater, and only fill it when the heater has cooled down.
- ✗ **DO NOT** use "old" or "second-hand" diesel or anything other than clean, fresh, new diesel.
- ✗ **DO NOT** use low-quality diesel. Always use high-quality and clean fuel that has been filtered before use. Using any other type of fuel will invalidate the warranty and could cause an explosion, a fire or the unit to malfunction.
- ✓ Ensure that the heater is correctly turned off.
- ✓ When not in use for an extended period, store in a safe, dry area, out of reach of children.
IMPORTANT: This appliance is not intended for persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they **DO NOT** play with the appliance.
- ✓ Only suitable for clean, fresh, filtered diesel.
- ✓ It is dangerous to put your hands or any other thing into the grill or furnace, or to apply a considerable shock or force to the heater, as there will be a risk of fire or electric shock.
- ✗ **DO NOT** place any electrical item or heavy material on top of heater. (It may cause malfunctioning or electrical shock, or if the heavy object falls onto the user can cause injuries).
- ✗ **DO NOT** move or transport heater during operation due to the risk of fire or causing burns. Before moving the heater turn the heater OFF, disconnect from mains supply and allow to cool.
- ☐ **WARNING! DO NOT** use this heater for another purpose other than heating.
- ✗ **DO NOT** use this heater for drying clothes.
- ✗ **DO NOT** use this heater for keeping pets, animals, or plants warm.
- ✗ **DO NOT** place any inflammable vinyl or plastic goods on top of heater, or cover the heater grill with clothes.
- ✓ It is dangerous to use this heater for long periods of time in a closed room. (It is recommended that the user open the windows to let fresh air into the room for ventilation).
- ✗ **DO NOT** touch any of the heated material such as the grill, burner, etc, while the heater is in operation or just after extinguishing, as the grill and burner are still hot. **DO NOT** touch any of those parts, especially pay attention to keep children away from the hot materials, it may cause serious harm.
- ✓ It is recommended not to use this heater in the highly elevated areas.
- ✓ Cleaning and user maintenance on the appliance shall not be made by children without supervision.
- ✗ **DO NOT** use this heater in areas higher than 1,500m altitude from the sea level. The heater needs more ventilation in areas of 700-1,500m altitude from sea level. This is due to the lack of oxygen, there is an increased risk of carbon monoxide poisoning.
- ✓ It is dangerous to turn OFF the heater by taking out the power plug, It may cause a malfunction or electric shock. Please turn OFF using the RUN/STOP button.
- ✗ **DO NOT** use water or other chemicals to clean the heater. (It may cause a fire or an electric shock).
- ✗ **DO NOT** use this heater on unstable surfaces.
- ✗ **DO NOT** use this heater on an inclined surface, the heater may fall over, which can cause a fire or malfunction.
- ✓ Place this instruction manual noticeably near the heater so that, if necessary, the user can always find it easily.
- ☐ **WARNING!** The appliance shall be disconnected from its power source during service and when replacing parts and, if that the removal of the plug is foreseen, it shall be clearly indicated that the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed.
- ✓ A qualified installer is required to install, adjust and, where necessary, convert the appliance for use with other fuel types.
- ✓ Consult the appliance manufacturer before replacing parts other than those specified or recommended in the servicing instructions.
- ✓ 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.
- ☐ **WARNING! The appliance is supplied with castors fitted. Whether the unit is run with castors fitted or not, DO NOT run the heater whilst placed above a potentially flammable floor that may be subject to over heating.**

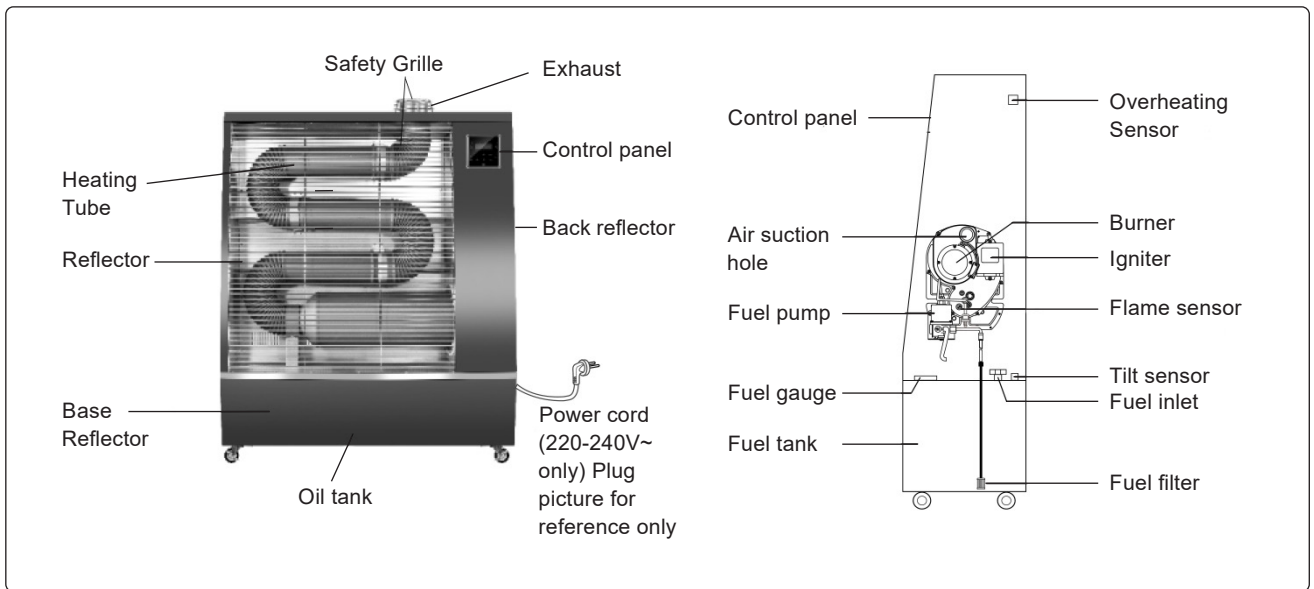
2. INTRODUCTION

Versatile and compact diesel-fuelled Infrared technology heater has no electric fan, meaning there is no air movement and the heat is spread evenly in all directions, quietly and dust-free. Ideal for use in well-ventilated indoor areas including garages, workshops, warehouses and marquees. Extremely inexpensive to run, using only around 1.5L of fuel per hour. Clean burn and precisely controlled fuel supply, ensure that no unpleasant odours or carbon monoxide enter the air. Equipped with advanced safety features including overheat protection, auto-misfire, tilt, shock, low fuel shut-off sensors and flame-out fuel cut. Features 24hr timer and temperature control thermostat. Soft-touch control panel with LED display. Fitted with four castor wheels for easy manoeuvrability. Stainless exhaust available - IREX1 (End Pipe), IREX2 (1m Extension), IREX3 (90° Bend). Only suitable for use with fresh, clean diesel. The use of any other fuels or old/second-hand diesel will invalidate the warranty and may cause the unit to malfunction.

3. SPECIFICATION

Models No:	IR19
Energy Rating:	A
Fuel Tank:	70L
Fuel:	Diesel
Fuse Rating:	3A
Heated Area:	14,740ft ³ (450m ³)
Motor Power:	80W
Noise Level:	48dB(A)
Weight:	60kg

Output:	64,000btu/hr(19kW)	NOTE: There should be no combustible objects within 3 metres in front of the heater, within 3 metres of the top, and no combustible objects or shielding objects within 3 metres to the left, right and rear side.
Plug Type:	3-Pin	
Power Supply Cable Length:	1.8m	
Running Time per Filling (Maximum):	36hr	
Supply:	230V~50Hz	
Transport Wheels:	Yes	
Nominal Heat Output:	20kW	
Energy Efficiency Index:	92%	
Useful Energy Efficiency at Nominal Heat Output: η (nom):	88.85%	



4. DAILY CHECKS & ADJUSTMENTS

- ✓ Please check if the heater can be stopped by pressing the On/Off switch by the remote controller, or on the front panel.
- ✓ Please check if the heater can be stopped by the sleep timer function.
- ✓ Please check if the heater can be stopped using the auto-self-checking function.

4.1. AIR FLOW-OUT

4.1.1. If the electric pump is noisy and the burner has no ignition, the main cause of the problem is air flow into the electric pump and not distributing oil. If oil is all consumed without remaining in the tank, air can be flowed into the inside the electric pump.

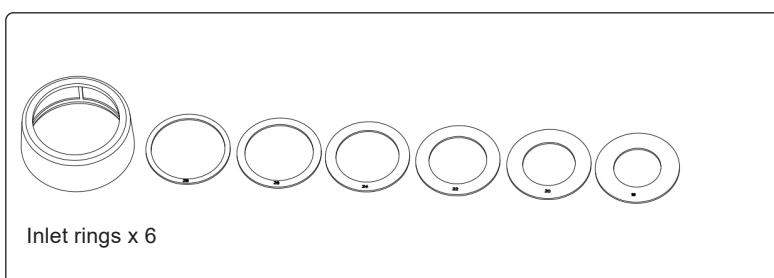
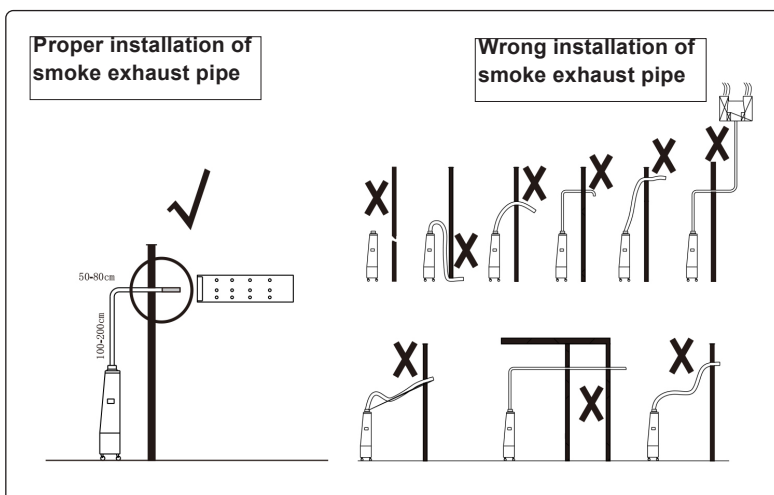
4.2. BLACK SMOKE

In order to adapt to the difference between users at different height altitudes and fuel quality, if the combustion is not sufficient and black smoke is discharged from the exhaust port, please see the following methods below:

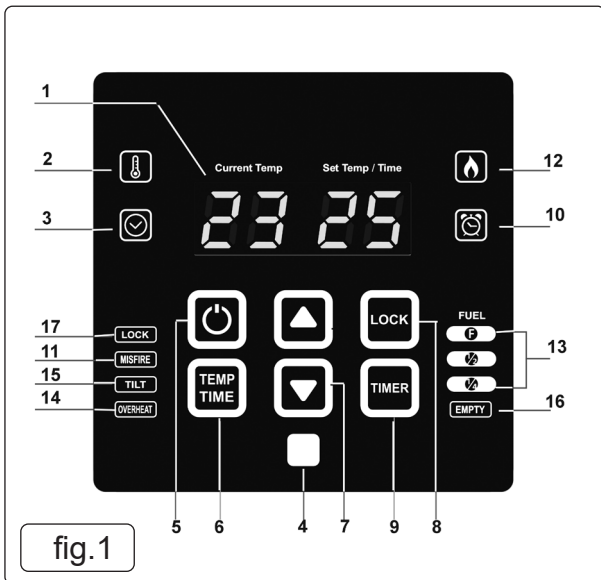
1. Adjust the pressure of the electronic pump. Counter-clockwise to reduce the fuel injection volume.
2. Adjust the air suction hole. Increase inlet ring size, increase the air intake.

In order to adapt to the difference between users at different latitudes and fuel quality, if the combustion is not sufficient and black smoke is discharged from the exhaust port, please adjust the following methods:

1. Adjust the pressure of the electronic pump. Counter-clockwise to reduce the fuel injection volume.
2. Adjust the air suction hole. Increase inlet ring size, increases the air intake.



5. OPERATION




ITEM	DESCRIPTION
1	LED Display for Current Temp/Set Temp/Time
2	Temperature Control Mode On
3	Cycle Time Control Mode On
4	(IR Receiver NOT FITTED TO THIS MODEL)
5	ON/OFF
6	Temp / Cycle Time Selection
7	Increase/Decrease Temp or Cycle Time Setting
8	Lock Settings - press to lock, press to unlock
9	Timer ON/OFF
10	Timer ON Indicator
11	Misfire Indicator
12	Operating Indicator
13	Fuel Gauge Display
14	Overheating Indicator
15	Tilt Indicator
16	Low/Empty fuel Indicator
17	Lock State Indicator


5.1. Connect the unit to the power supply and turn it on.

5.1.1. The LED displays the current ambient temperature.

5.2. TEMPERATURE CONTROL

NOTE: Temperature is displayed in degrees centigrade. To change to Fahrenheit hold both UP and DOWN arrows for 5 seconds.

5.2.1. Switch the unit on (fig.1.5).  The heater will start up using the last entered values of temperature and time.


The unit can be switched off by pressing the ON/OFF button again (fig.1.5). 

5.2.2. To set the required temperature, use the UP and DOWN arrows (fig.1.7). The temperature setting range is from 0° to 40°C.

NOTE: If the set temperature is 2°C higher than current ambient temperature the unit will start working. If set temperature is 1°C below current ambient temperature, the unit will stop working.

5.3. CYCLE TIME CONTROL


5.3.1. The heater will start up using the last entered values of temperature and time.

The unit can be switched off by pressing the ON/OFF button again (fig.1.5). 

5.3.2. Press Temp/Time selector (fig.1.6 ) and wait a few seconds until Cycle Timer ON indicator (fig.1.3 ) is illuminated.


5.3.3. To set ON cycle time period, use the UP and DOWN arrows (fig.1.7). Once set to the required value, stop pressing buttons and after 3 seconds the displayed value will be set.

5.3.4. The cycle time ON value can be set from 5 minutes up to 55 minutes.

NOTE: If the inputted value exceeds 55 minutes, the unit will operate in continuous mode and displays 

5.4. TIMER

5.4.1. To run for a set time, select the TIMER function (fig.1.9 ) and use the UP and DOWN arrows (fig.1.7) to set time.

The Timer ON indicator (fig.1.10 ) will illuminate.

5.4.2. Long press the timer button (fig.1.8 ) for 3 seconds to turn off the timer.

5.5. CHILD LOCK

5.5.1. Press the child lock button (fig.1.7 ) for 3 seconds to turn on or turn off the child lock function.

6. MAINTENANCE

❑ **WARNING!** Unplug unit from mains power supply ensure heater is cold before opening or servicing heater.

6.1. EMERGENCY SERVICING UNDER WET CONDITIONS

6.1.1. Ensure unit is disconnected from mains supply, drained of all fuel before attempting to perform emergency maintenance.

❑ **WARNING! DO NOT** tamper with the unit, have an experienced service engineer make any necessary adjustment or repairs.

6.2. LONG TERM STORAGE

6.2.1. Unscrew the fuel cap.

6.2.2. Using an approved siphon, remove the diesel.

6.2.3. Using a small amount of diesel, rinse and swirl the fuel inside the fuel tank.

6.2.4. Empty the tank completely.

NOTE: never mix water with fuel, it will cause rust inside the tank.

IMPORTANT: Never store leftover fuel between seasons, using old fuel can damage heater.

6.2.5. Store heater in a dry, well ventilated area. Be sure that the storage area is free of dust and corrosive vapours. Repack the heater in the original packaging and keep user's manual in an easily accessible place.

6.3. FUEL / FUEL TANK

6.3.1. Flush tank every 200 hours of operation or as needed. **DO NOT** flush with water, use fresh paraffin (to flush NOT to fuel) only.

✓ Only suitable for clean, fresh, filtered diesel.

✗ **DO NOT** use "old" or "second-hand" diesel or anything other than clean, fresh, new diesel.

✗ **DO NOT** use low-quality diesel. Always use high-quality and clean fuel that has been filtered before use. Using any other type of fuel will invalidate the warranty and could cause an explosion, a fire or the unit to malfunction.

6.4. NOZZLES

6.4.1. Nozzles should be cleaned or replaced at least once per heating season. Contaminated fuel could make this necessary immediately.

6.4.2. To clean dirt from nozzle, blow compressed air through nozzle front. It may be necessary to soak nozzle in clean paraffin or diesel to help loosen any particles.

6.5. FLAME SENSOR (fig.2)

6.5.1. The photocell should be cleaned at least once per heating season or more depending on conditions, use a cotton swab and water or alcohol to clean the lens of the photocell. Ensure the sensor is fully engaged when replacing it (fig.2).

6.6. CHANGE OF COMPONENTS

6.6.1. For any change of components please contact Sealey Service Centre.

✗ **DO NOT** try to repair the heater. Contact the place of purchase, or contact Sealey Service Centre.

6.7. FILTERS

6.7.1. The fuel filter and oil filter should be cleaned at least twice per heating season by rinsing it in clean paraffin or diesel. Contaminated or old fuel could make cleaning necessary immediately.

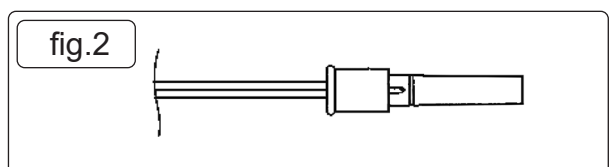
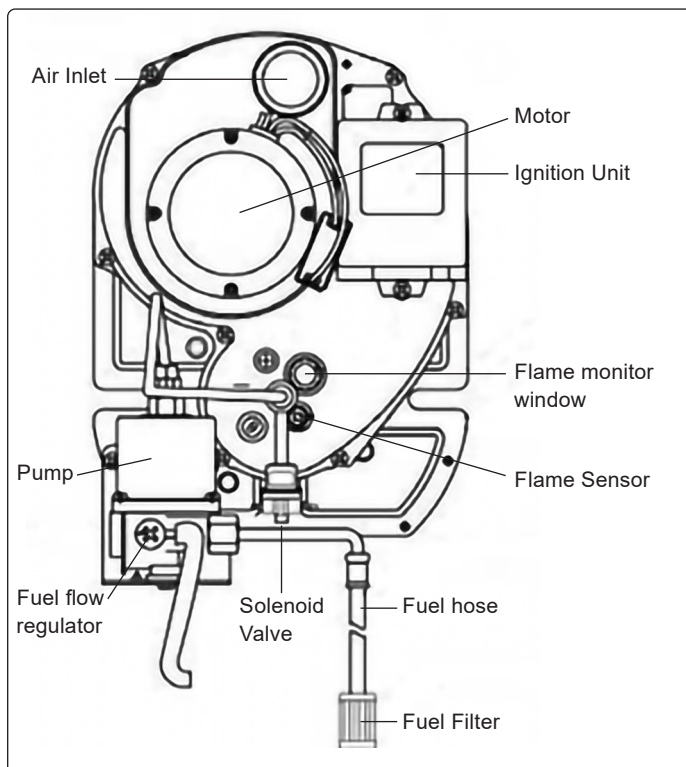
6.8. GRILL REMOVAL

6.8.1. To remove the front grill, raise grill slightly, lightly pull out from heater. Reverse to install.

6.8.2. To clean the reflector ensure care is taken. **DO NOT** use harsh chemicals to clean. **Note:** (The burner pipe is coated with a ceramic material, so care must be taken not to damage the coating.)

✗ **DO NOT** disassemble the burner.

6.8.3. Replace the front grill after cleaning.



6.9. After Maintenance the heater needs to have a high-voltage insulation test (1800V5mA 3S) and ignition test carried out by a qualified service engineer.

7. TROUBLESHOOTING

7.1. IN CASE OF SUDDEN STOP DURING OPERATION

- ✓ Please check operating time control operation.
- ✓ Please check the setting temp, if less than the current temp.

	PROBLEM	CAUSE	SOLUTION
IMMEDIATE STOP JUST AFTER IGNITION	"Lack of fuel" light ON?	Running out of fuel.	Fill up the fuel.
	Check if the fuel is diesel or kerosene.	It may cause less performance & trouble.	Drain the existing fuel, and fill with diesel.
	Water or any other impurities in fuel?	It may cause less performance & trouble.	Replace the fuel with good quality one.
	Is flame sensor located in correct position?	If in different position, will cause an error.	Place the sensor in original location.
	Is flame sensor dirty?	Error because of soot or dirt.	Call after sales service agent.
	Noisy fuel pump?	Excessive air in the pump and nozzle.	Remove the air in the electric pump.
EXCESSIVE SOOT IS GENERATED	Check if the fuel is diesel or kerosene.	It may cause less performance & trouble.	Drain the existing fuel, and fill with diesel only.
	Water or any other impurity in fuel?	It may cause less performance & trouble.	Replace the fuel with good quality one.
	Is air suction valve adjusted excessively or too small?	Error on temperature sensor.	Call after sales service agent.
	Is tube clogged up?	Smoke may flow backward.	Clean the tube by removing soot inside of tube, or replace tube with new one.
NOISE IN BURNER	Is fuel filter clogged?	Dirty filter with impurities and contamination.	Clean or replace with new one.
NO OPERATION	No power supply?		Check the power supply is correct. (ex.220-240VAC 50Hz).
	Check power plug is disconnected.		Power plug into the outlet.
FAN NOT WORKING	"Lack of fuel" light ON? (such as the first problem).		Fill it up with diesel
	Is set temp, lower than current temp?		Set the temp higher than current temp.
	Misfire lamp ON?	Air in the electric pump.	Remove the air in the electric pump.
	Overheating Lamp ON?	Under operation of overheating prevention.	Ventilate with fresh air in the room, turn OFF the heater for a while.
	Display lamp ON?	Ground surface is inclined or not flat.	Place the heater on level ground.
	Can you see "Er01" Error on the display?	Temperature sensor.	Select Timer control operation from temperature control mode.
NO IGNITION ON BURNER	Is fuel filter clogged up?	Filter is contaminated.	Clean the filter with compressed air, or replace with a new one.
	Is air suction valve adjusted excessively or too small?	Error on temperature sensor.	Call after sales service agent.
	Voltage is low?	In case of low voltage..	Burner will not work properly, so use a booster to elevate voltage. (A/S)

⚠ Is Power ON?



⚠ Is Fuel enough?



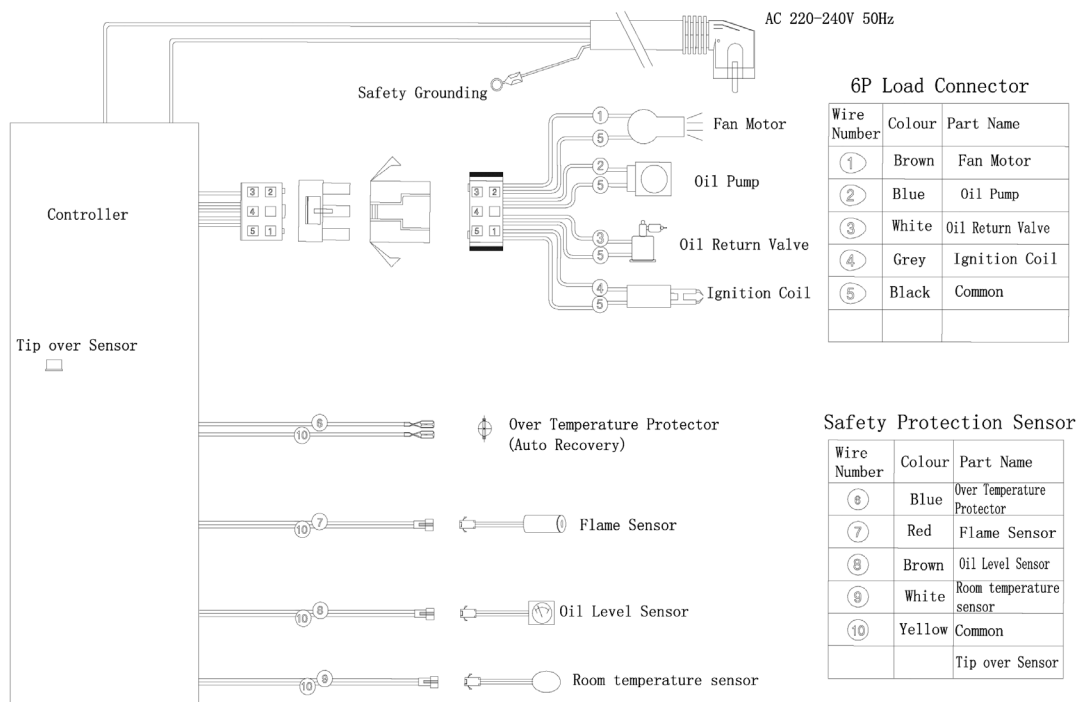
⚠ Is Flame sensor clean?



Please check before you think there may be a problem with the heater.

ERROR CODE	CAUSE	SOLUTION
Er01	Temperature sensor open or error.	Retighten connections.
Er02	Tipping over beyond 15°	Disconnect power supply and adjust levels.
Er04	Fire sensor connection.	Retighten connections.
Er05 and Misfire light	Air in fuel line.	Restart.
	No fuel.	Check fuel levels. Fill with clean, fresh, filtered diesel as per instructions.
	Filter clogged.	Clean / change filter.
	Motor failure.	Return to Supplier for Service.
	Igniter failing.	
Pump failure.		
Er06	Temperature overheating.	Check unit is not covered.
Er09	Oil level sensor fault.	Retighten connections.
Overheating	Set temperature is below ambient.	Adjust temperature setting.

8. WIRING DIAGRAM



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.

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. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on technical@sealey.co.uk or 01284 757505.

IMPORTANT: No Liability is accepted for incorrect use of this product.

WARRANTY: Guarantee is 36 months from purchase date, proof of which is required for any claim.

Sealey Group, Kempson Way, Suffolk Business Park, Bury St Edmunds, Suffolk. IP32 7AR



01284 757500



sales@sealey.co.uk



www.sealey.co.uk

Product Information Sheet. Local Space Heaters, Gas / Liquid Fuel.

SUPPLIER_NAME_OR_TRADEMARK Sealey EU Ltd.
 DELEGATED_ACT 2015/1188/EU
 MODEL_IDENTIFIER IR19

ADDRESS Farney Street, Carrickmacross, Co. Monaghan, A81 PK68 Ireland
 PHONE_NUMBER 01284 757 500
 EMAIL_ADDRESS TechnicalCompliance@sealey.co.uk

Indirect heating functionality	NA	Direct heat output (kW)	20.0
Fuel type	Liquid	Indirect heat output (kW)	NA
		Space Heating Emissions mg/kWh	125.5

Heat output

Useful efficiency

Nominal heat output kW	20.0	at nominal heat output	92.0
Minimum heat output (indicative) kW	NA	at minimum heat output	NA

Auxiliary electricity consumption

Type of heat output/room temperature control

At nominal heat output kW	0.800	Single stage heat output, no room temperature control	NO
At minimum heat output kW	NA	Two or more manual stages, no room temperature control	NO
In standby mode kW	0.016	With mechanical thermostat room temperature control	YES
		With electronic room temperature control	NO
		With electronic room temperature control plus day timer	NO
		With electronic room temperature control plus week timer	NO
		Other control options	
		Room temperature control, with presence detection	NO
		Room temperature control, with open window detection	NO
		With distance control option	NO
		With adaptive start control	NO
		With working time limitation	NO
		With black bulb sensor	NO

Permanent pilot flame power requirement

Pilot flame power requirement (if applicable) kW	NA
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Suppliers website <https://www.sealey.co.uk/>