

SEALEY

INFRARED SPACE HEATER KEROSENE/DIESEL HEATER 51,000BTU/HR SPACE WARMER®

MODEL NO: IR115

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



Warning Electricity



Warning: Hot surfaces



Do not cover



Keep in dry area protect from rain



Use in well ventilated areas

This product is not suitable for primary heating purposes.

This product is only suitable for well insulated spaces or occasional use.

1. SAFETY

- WARNING!** Trained operators only. Read the manual before use.

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.
 - ✓ Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.
 - ✗ **DO NOT** use worn or damaged cables, plugs or connectors.
 - ✓ Ensure that any faulty item is repaired or replaced immediately by a Sealey qualified technician.
 - ✓ If the cable or plug is damaged during use, switch off the electricity supply and remove from use.
 - ✓ 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.
- ✓ Sealey recommend that an RCD (Residual Current Device) is used with all electrical products.
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.
- ✓ 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.

1.2. GENERAL SAFETY

- ✓ Children from age 8 years and above, persons with reduced physical, sensory, or mental capabilities those with lack of experience and knowledge can use the appliance, if they have been given supervision or instruction concerning use of the appliance in a safe way to understand the hazards involved.
- ✓ Children shall **NOT** play with the appliance.
- ✓ Cleaning and user maintenance on the appliance shall not be made by children without supervision.
- ✓ The appliance shall be disconnected from its power source during service and when replacing parts.
- WARNING!** The appliance contains UV emitter. **DO NOT** stare at the light source.
- WARNING!** Failure to comply with the precautions and instructions provided with this heater, can result in death, serious bodily injury and property loss or damage from hazards of fire, explosion, burn, asphyxiation, carbon monoxide poisoning, and/or electrical shock. Only persons who can understand and follow the instructions should use or service this heater. If you need assistance or heater information such as an instruction manual, labels, etc, contact the manufacturer.
- WARNING!** Not for use in residential living areas or in non-adequately ventilated enclosed spaces.
- WARNING!** Carbon monoxide can kill you. Using a portable heater inside a tent, RV, camper, vehicle, shelter or other enclosed areas can produce deadly carbon monoxide.
- WARNING! DO NOT** use petrol, naphtha or volatile fuels.
 - ✗ STOP heater before adding fuel. Always refuel outdoors away from open flames.
 - ✗ **DO NOT** use an external fuel source.
 - ✗ **DO NOT** use heater where flammable liquids or vapours may be present.
 - ✗ **DO NOT** start when chamber is hot.
 - ✗ **DO NOT** start heater when excess fuel has accumulated in the chamber.
 - ✗ **DO NOT** place cooking utensils on top of the heater.
- WARNING!** Not suitable for use on wooden floors or other combustible materials. In use the heater should rest on suitable insulating material at least 26mm thick, extending 1 metre or more beyond the heater in all directions.

1.2.1. OPERATIONAL SAFETY

- ✓ Indirect-Fired means that all of the combustion products enter the heated space. Even though this heater operates very close to 100 percent combustion efficiency, it still produces small amounts of carbon monoxide. Carbon monoxide (called CO) is toxic. CO can build up in a heated space and failure to provide adequate ventilation could result in death. The symptoms of inadequate ventilation are:
 - headache
 - dizziness
 - burning eyes and nose

- nausea
- dry mouth or sore throat

- ✓ Be sure to follow advice about ventilation in the Safety section.
- ✓ Forced Air means that a blower or fan pushes the air through the heater. Proper combustion depends upon this air flow; therefore, the heater must not be revised, modified or operated with parts removed or missing. Likewise, safety systems must not be circumvented or modified in order to operate the heater. When the heater is to be operated in the presence of other people the user is responsible for properly acquainting those present with the safety precautions and instructions, and of the hazards involved.
- ✓ Check the heater thoroughly for damage. Do not operate a damaged heater.
- ✗ **DO NOT** modify the heater or operate a heater which has been modified from its original condition.
- ✓ For indoor use only. Not for use where exposed to weather.
- ✓ Use in well ventilated areas, provide at least 0.19m² of opening near the floor and 0.19m² near the ceiling directly to outdoors. Increase air openings for each additional heater.
- ✓ Always keep combustibles, like paper and wood at least 2.4 m from the heater outlet and 1.2 m from the top, sides and inlet. Locate 3.0m from canvas or plastic coverings and secure them to prevent flapping movement.
- **WARNING!** Due to the high surface and exhaust temperatures, adults and children must observe clearances to avoid burns or clothing ignition. **DO NOT** touch. Keep children, clothing, and combustibles away. Install the heater such that it is not directly exposed to water spray, rain and / or water.
- ✓ Never use in areas normally for habitation and /or where children may be present.
- ✓ Operate only on a stable, level surface.
- ✗ **DO NOT** use with duct work. **DO NOT** restrict inlet or exit.
- ✓ Use only with electrical power specified.
- ✗ **DO NOT** move, handle, or service while hot or in operation.



2. INTRODUCTION

Versatile infrared multi-fuel heater designed to run on kerosene or diesel. Clean burning, suitable for well-ventilated applications. 11L Tank allows approximately 6hr running time, making this unit extremely economical. Produces an output of 51,000Btu/hr, heating an area of approx. 350mtr³ (12,500ft³). LED display for ambient and thermostatically controlled temperature. Fuel gauge and heavy-duty fuel cap. Supplied with stainless steel heat deflector which protects the floor from heat damage when used. Carry handle for easy transportation. Safety features include automatic overheat shut-off and tip over protection.

3. SPECIFICATION

Model No:IR115
 Airflow:400 m³/h
 Fuel Tank: 11L
 Fuel:.....Kerosene/Diesel
 Fuse Rating:5A
 Heated Area:350m³ (12,500ft³)
 Motor Power:.....65W
 Weight:..... 14kg
 Output:51,182Btu/hr (15KW)
 Plug Type:3-Pin
 Power Supply Cable Length:.....2.1m
 Running Time Per Filling (Maximum): 6hrs
 Supply:..... 230V - 0.6A
 Transport Wheels:..... No

4. FEATURES SEE FIG.1

5. OPERATION

5.1. UNPACKING:

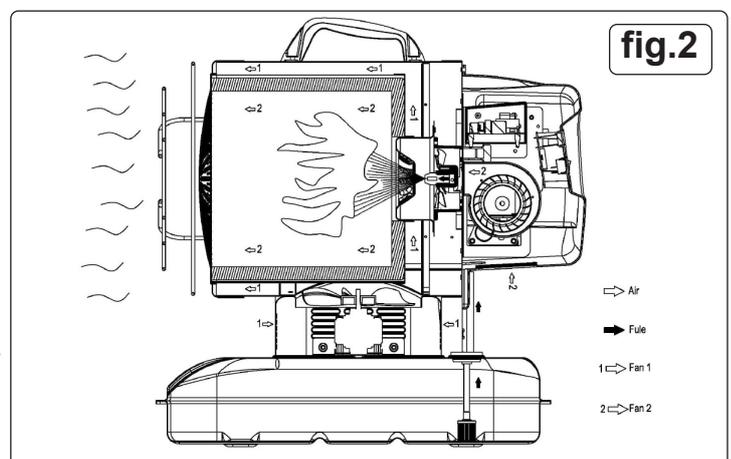
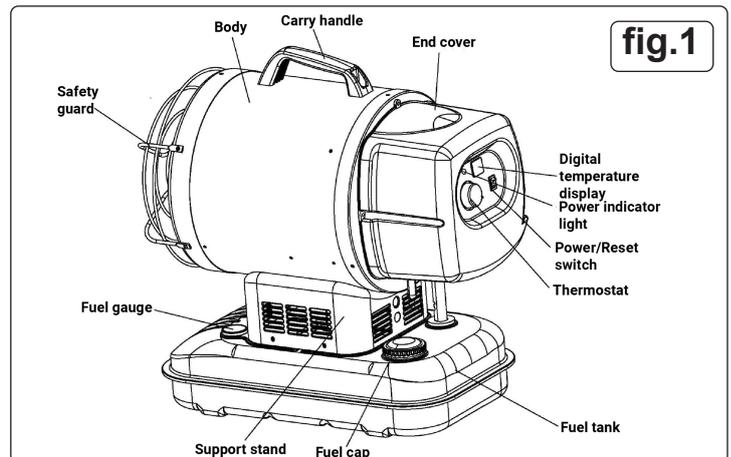
- 5.1.1. Remove heater from carton.
- 5.1.2. Remove all protective material which may have been applied to the heater for shipment.
- 5.1.3. Check the heater for possible shipping damage. If any damage is found immediately contact Sealey.
NOTE: Save the box and packaging materials for future storage.

5.2. FUELS

- 5.2.1. NEVER use fuel such as gasoline, benzene, alcohol, white gas, camp stove fuel, paint thinners, or other oil compounds in this heater (THESE ARE VOLATILE FUELS THAT CAN CAUSE A FIRE OR EXPLOSION).
- ✗ **DO NOT** use kerosene that has been stored from one season to the next. Kerosene deteriorates over time. OLD KEROSENE WILL NOT BURN PROPERLY IN THIS HEATER.

5.3. PRINCIPLES OF OPERATION fig.2:

FUEL SYSTEM: fuel in tank pressurized by electron magnetic pump, transferred into nozzle and atomized.
QUICK-FIRE IGNITION: High-voltage generated by ignition transformer.



Current goes through tip position of the two ignition needles, which will provide a spark and fire the atomized fuel.

AIR SYSTEM: Fan 1 on the back of the product provides the oxygen for combustion as well as to blow out the heated air.

Fan 2 works to cool down the surface temperature of the product.

- 5.4. **TEMPERATURE LIMIT CONTROL:** This heater is equipped with a Temperature Limit Control designed to turn the heater off should the internal temperature rise to an unsafe level. If this device activates and turns your heater off, it may require service. Once the temperature falls below the reset temperature, you will be able to start your heater.
- 5.5. **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.
- 5.6. **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.
- 5.7. **ANTI-TOPPLING:** The product has an anti-toppling switch which will shut down operation when product topples.

NOTE: The pump will make a noise when operated for the first time (this also includes when started after refuelling). The noise may last for 10 seconds. This process is the pump exhausting air. Please also note that if the pump works for a long time without fuel, it will seriously reduce the life span of the unit.

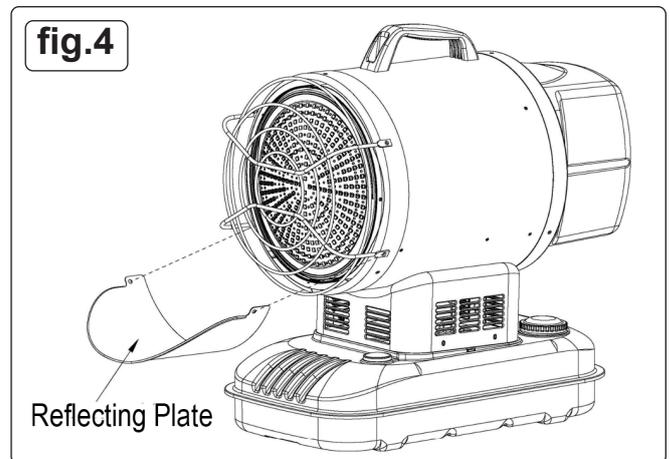
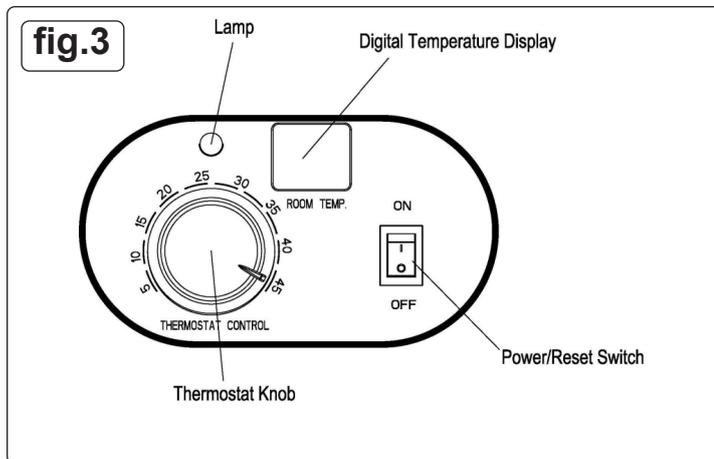
5.8. **FUELLING THE HEATER**

CAUTION: NEVER FILL THE FUEL TANK INDOORS. ALWAYS FILL THE TANK OUTDOORS. BE SURE THAT THE HEATER IS ON LEVEL GROUND WHEN FUELLING, AND NEVER OVERFILL THE FUEL TANK. NEVER REFUEL THIS HEATER WHILE IT IS HOT OR OPERATING. FIRE OR EXPLOSION COULD RESULT.

- ☐ **WARNING!** Start the heater outdoors for the first time. This will allow any oils used in the manufacturing process to be burned off in a safe environment. This initial burn should last at least 10 minutes.

5.9. **VENTILATION**

- 5.9.1. Risk of indoor air pollution. Use heater only in well ventilated areas.



5.10. **REFLECTING PLATE fig.4:**

When using on non-heat-resistant floor or wooden floor, users must fit the reflecting plate, to avoid fire hazard and floor damage, fig.4.

5.11. **TO START THE HEATER**

- 5.11.1. Fill the tank with kerosene until fuel gauge points to "F". Make sure fuel cap is secure.
- 5.11.2. Plug power cord into mains supply.
- 5.11.3. Turn thermostat control knob to desired temperature setting.
- 5.11.4. The setting range is from 5°C to 45°C.
- 5.11.5. Push the Power switch to the "ON" position (See fig.3).
- 5.11.6. The power indicator lamp and room temperature display will light and the heater will start.

NOTE: If the heater does not fire, the thermostat may be set too low. Turn the Control Knob to a higher setting until heater fires.

If the heater still does not start, push Power Switch to "OFF", then back to "ON". If heater still does not fire, see Troubleshooting Guide.

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.

5.12. **TO STOP THE HEATER**

- 5.12.1. Turn the Power switch to "OFF" position and disconnect from mains supply.

5.13. **TO RESTART THE HEATER**

- 5.13.1. Wait ten seconds after shutting off heater.
- 5.13.2. Turn the Power Switch to "ON" position.
- 5.13.3. Follow all starting procedure precautions above.

5.14. **STORAGE**

IMPORTANT: Never store leftover kerosene over the summer.

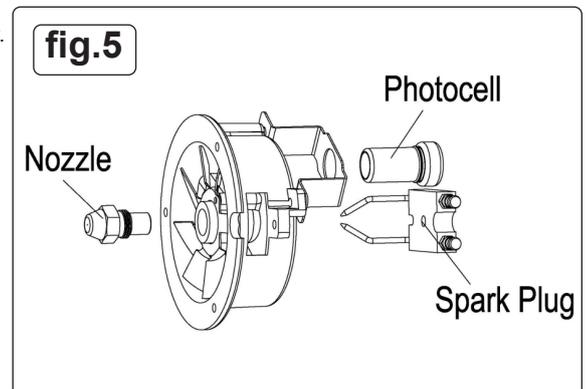
Using old fuel can damage your heater.

Store heater in a dry, well-ventilated area

Be sure that the storage area is free of dust and corrosive vapours.

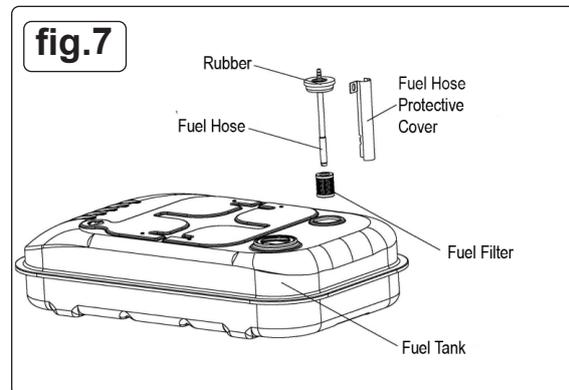
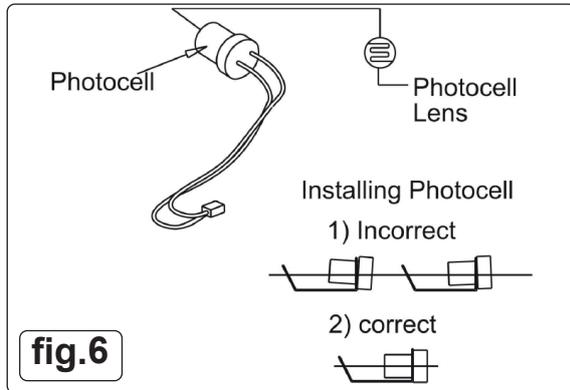
Repack heater in its original carton.

Keep the Users Manual in an easily accessible place



6. MAINTENANCE

- 6.1. **NOZZLES:** should be cleaned or replaced at least once per heating season. Contaminated fuel could make this necessary immediately.
- 6.1.1. To clean dirt from nozzle, blow compressed air through nozzle front.
- 6.1.2. It may be necessary to soak nozzle in clean kerosene to help loosen any particles.
NOTE: Use of diesel may require additional maintenance.
- 6.1.3. Using this heater without proper maintenance or with contaminated or old fuel may lead to improper combustion and possible soot production.



- 6.2. **SPARK PLUG Fig.5:** Clean and re-gap every 600 hours of operation, or replace as needed.
- 6.2.1. After removing the Spark Plug, clean the terminals with a wire brush. Re-gap the terminals to 3.5mm. see Fig.5.
- 6.3. **PHOTOCELL Fig.6:** The Photocell should be cleaned at least once per heating season or more depending on conditions.
- 6.3.1. Use a cotton swap dipped in water or alcohol to clean the lens of the Photocell.
- 6.3.2. Note the proper Photocell position as shown in Fig.6.
- 6.4. **FUEL FILTER Fig.7:** The Fuel Filter should be cleaned at least twice per heating season by rinsing it in clean kerosene. Contaminated fuel could make this necessary immediately.
- 6.4.1. Use of diesel may require additional maintenance.
- 6.4.2. Improper maintenance can lead to poor combustion and soot production.

7. END OF LIFE

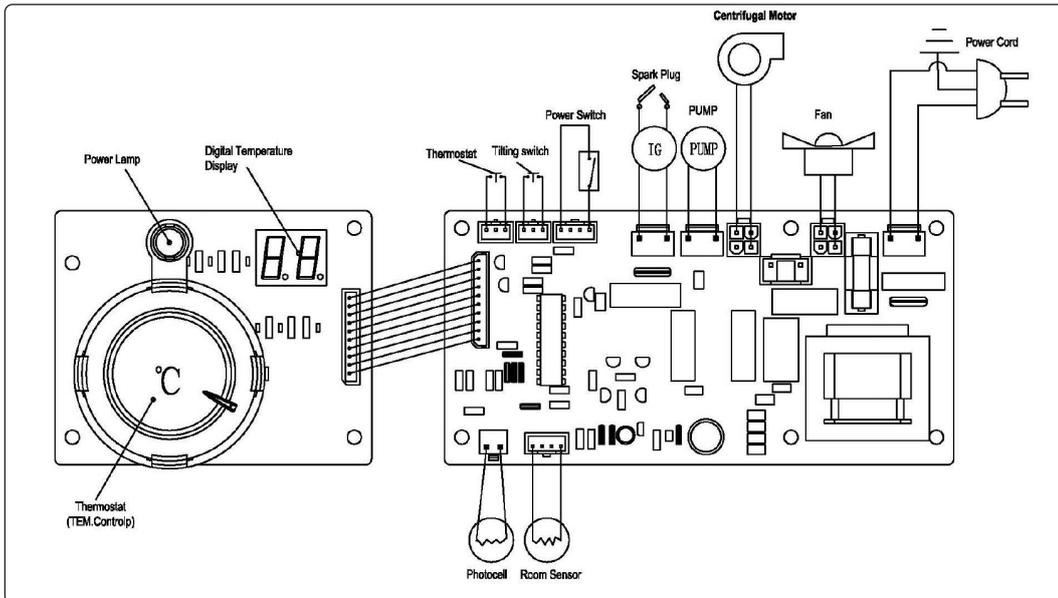
At the end of its life product must be dismantled and recycled according to local regulations in force.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Heater fires, but Main PCB shuts heater off after a short period of time. Lamp is flickering, and LED display shows "E1".	<ol style="list-style-type: none"> 1. Dirty Fuel Filter 2. Nozzle is Dirty 3. Photocell lens is Dirty 4. Photocell not installed properly 5. Photocell Defective 6. Improper electrical connection between Main PCB and Photocell. 	<ol style="list-style-type: none"> 1. Clean/replace Fuel Filter 2. Clean/replace Nozzle 3. Clean/replace Photocell 4. Adjust Photocell position 5. Replace Photocell 6. Check wiring connections (See Wiring Diagram)
Heater will not operate for short time. Lamp flickers and LED display shows "E1".	<ol style="list-style-type: none"> 1. No kerosene in fuel tank 2. Corroded Spark Plug or incorrect plug gap. 3. Dirty Fuel Filter 4. Dirty Nozzle 5. Moisture in Fuel/Fuel Tank 6. Improper electrical connection between Transformer and Circuit Board 7. Igniter Wire not connected to Spark Plug 8. Defective Igniter 	<ol style="list-style-type: none"> 1. Fill tank with fresh kerosene 2. Clean/replace Spark Plug 3. Clean/replace Fuel Filter 4. Clean/replace Nozzle 5. Rinse out fuel tank with clean fresh kerosene. 6. Inspect all electrical connections. See Wiring Diagram 7. Re-attach Igniter wire to Spark Plug 8. Replace Igniter
Fan does not operate when heater is plugged in and Power Switch is in the "ON" position. The lamp is flickering or on and LED Display shows "E1" or "E2".	<ol style="list-style-type: none"> 1. Thermostat is set too low 2. Broken electrical connection between Main PCB and motor 	<ol style="list-style-type: none"> 1. Rotate thermostat to a higher setting 2. Inspect all electrical connections. See Wiring Diagrams

<p>Poor Combustion and / or excess soot production</p>	<ol style="list-style-type: none"> 1. Temperature limit sensor has overheated 2. No electrical power 3. Fuse Blown 4. Improper electrical connection between Temperature Limit Sensor and Circuit Board 	<ol style="list-style-type: none"> 1. Push Power Switch to "OFF" and allow heater to cool for 10 minutes. Push Power Switch to back to "ON" 2. Check power cord and extension cord to insure of proper connection. Test power supply 3. Check/replace Fuse 4. Inspect all electrical connections. Wiring Diagrams
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9. WIRING DIAGRAM



 **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.

 **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.

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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Information requirements for gaseous/liquid fuel local space heaters

Model identifier(s):										
Indirect heating functionality: Yes No										
Direct heat output: (kW)				Indirect heat output: (kW)						
Fuel						Space heating emissions NO _x nitrogen oxides				
Select fuel type:	Gaseous	Liquid	Specify:			[mg/kWh _{input}] (GCV)				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Heat output				Useful efficiency (NCV)						
Nominal heat output	P_{nom}		kW	Useful efficiency at nominal heat output	$\eta_{th,nom}$		%			
Minimum heat output (indicative)*	P_{min}		kW	Useful efficiency at minimum heat output (indicative)*	$\eta_{th,min}$		%			
				Seasonal space heating efficiency	η_s		%			
Auxiliary electricity consumption				Type of heat output/room temperature control (select one)						
At nominal heat output	$e_{l,max}$		kW	Single stage heat output, no room temperature control	Yes	No				
At minimum heat output	$e_{l,min}$		kW	Two or more manual stages, no room temperature control	Yes	No				
In standby mode	$e_{l,SB}$		kW	With mechanical thermostat room temperature control	Yes	No				
* Enter figure or NA				With electronic room temperature control	Yes	No				
				With electronic room temperature control plus day timer	Yes	No				
				With electronic room temperature control plus week timer	Yes	No				
				Other control options (multiple selections possible)						
				Room temperature control, with presence detection	Yes	No				
				Room temperature control, with open window detection	Yes	No				
				With distance control option	Yes	No				
				With adaptive start control	Yes	No				
Permanent pilot flame power requirement				With working time limitation	Yes	No				
Pilot flame power required (if applicable)*	P_{pilot}		kW	With black bulb sensor	Yes	No				