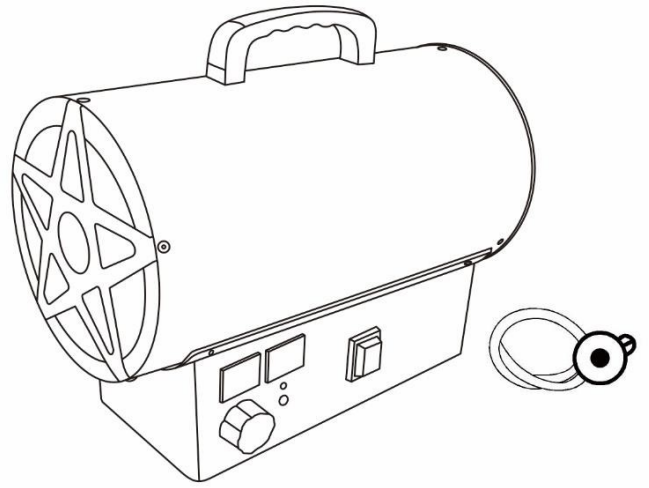
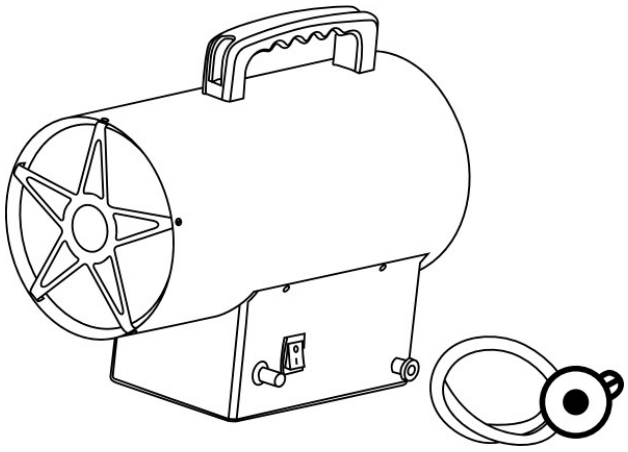
INDUSTRIAL LPG GAS HEATER





Instructions for use

HEATER SPECIFICATIONS

Model	GH-10M	GH-15M	GH-30M	GH-50M	GH-15	GH-30	GH-50	GH-100	GH-15B
Power supply	10 kW	15 kW	30 kW	50 kW	15 kW	30 kW	50 kW	100 kW	30 kW
Fuel consumption	0.73 kg/h	1.09 kg/h	2.18 kg/h	3.63 kg/h	1.09 kg/h	2.18 kg/h	3.63 kg/h	6.66 kg/h	1.09 kg/h
Gas type	For use with LPG	For use with LPG	For use with LPG	For use with LPG	For use with LPG	For use with LPG	For For use with LPG	For use with LPG	For use with LPG
Gas Gas supply	0.3 bar	0.3 bar	0.7 bar	1.5 bar	0.3 bar	0.7 bar	1.5 bar	2.5 bar	0.3 bar
Power consumption	220–240 V ~ 50 Hz	220–240 V ~ 50 Hz	220–240 V ~ 50 Hz	220–240 V ~ 50 Hz	220–240 V ~ 50 Hz	220–240 V ~ 50 Hz	220–240 V ~ 50 Hz	220–240 V ~ 50 Hz	220–240 V ~ 50 Hz
Ignition	Piezoelectric sensor: manual type	Piezoelectric sensor: manual type	Piezoelectric sensor: manual type	Piezoelectric igniter: manual type	Direct spark: Automatic type	Direct spark: Automatic type	Direct spark: Automatic type	Direct spark: Automatic type	Piezoelectric sensor: manual type

WARNINGS

YOUR SAFETY IS IMPORTANT TO YOU AND OTHERS, SO PLEASE READ THESE INSTRUCTIONS BEFORE USING THIS HEATER.

GENERAL HAZARD:

FAILURE TO FOLLOW THE SAFETY PRECAUTIONS AND INSTRUCTIONS SUPPLIED WITH THE HEATER MAY RESULT IN DEATH, SERIOUS BODILY INJURY AND LOSS OR DAMAGE TO PROPERTY DUE TO THE RISK OF FIRE, EXPLOSION, BURNS, SUFFOCATION, CARBON MONOXIDE POISONING OR ELECTRIC SHOCK.

THIS HEATER SHOULD ONLY BE USED OR SERVICED BY PERSONS WHO UNDERSTAND AND FOLLOW THE INSTRUCTIONS.

NOT INTENDED FOR USE IN A RECREATIONAL VEHICLE.

- Use only in a well-ventilated area and away from flammable materials
- DO NOT USE for heating living spaces in homes. For use in public buildings, refer to national regulations.
- After use, turn off the gas supply at the cylinder valve.
- Before lighting the burners, ensure that the fan is working properly.

● This appliance may be used by children aged 8 years and above and by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, provided they are supervised or have been instructed on how to use the appliance safely and understand the associated hazards. Children must not play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.

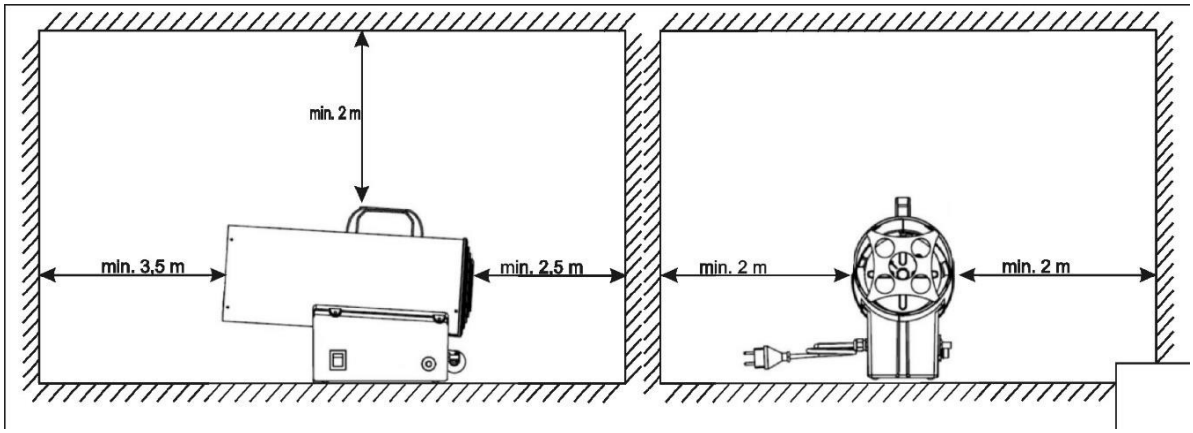
● WARNING: To prevent overheating, do not cover the heater.

● Children under 3 years of age should be kept out of reach unless they are under constant supervision.

● Children aged between 3 and 8 years may only switch the appliance on or off if it has been switched on, positioned or installed in its normal operating position and they are under supervision, or have been instructed on how to use the appliance safely and understand the associated risks. Children aged between 3 and 8 years must not connect, adjust or clean the appliance, or carry out user maintenance.

● WARNING – some parts of this product may become very hot and cause burns. Particular care must be taken where children and vulnerable persons are present.

Safe distance for installation



1. GENERAL INSTRUCTIONS

1.1 The heaters described in this manual must only be used outdoors or in a well-ventilated area.

1.2 For every kW, continuous ventilation of 25 cm^3 is required, evenly distributed between the floor and ceiling with a minimum outlet of 250 cm^3.

1.3 Gas cylinders must be used and stored in accordance with applicable regulations.

1.4 Never direct the flow of hot air towards the cylinder.

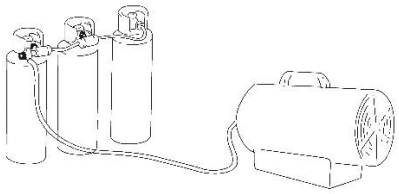
1.5 Use only the supplied pressure regulator.

1.6 Never use the heater without the cover.

1.7 Do not exceed 100 W/m^3 of free room volume. The minimum room volume must be greater than 100 m^3.

1.8 Do not block the inlet or outlet sections of the heater.

1.9 If the heater has to operate at maximum power for a long time, ice may form on the cylinder. This is caused by excessive vapour loss. For this or any other reason, the cylinder should not be heated. To avoid this effect, or at least minimise it, use a large cylinder or two cylinders joined together (Figure 1).



1.10 Do not use the heater in cellars or in any room below ground level.

1.11 In the event of a fault, contact the service department.

1.12 Close the gas cylinder valve after use.

1.13 The gas cylinder must always be replaced in accordance with safety regulations, away from any potential source of ignition.

1.14 The gas hose must not be twisted or bent.

1.15 The heater must be placed where there is no risk of fire; the hot air outlet must be at least 3 m from any flammable wall or ceiling and must never be directed towards the gas cylinder.

1.16 Use only the original gas hose and spare parts.

1.17 The heaters described in this leaflet are not intended for domestic use.

1.18 If you detect or suspect a gas leak, immediately close the gas cylinder, switch off the heater and do not use it until it has been checked by a qualified service centre. If the heater is installed indoors, ensure good ventilation by opening doors and windows fully. Do not create sparks or open flames.

1.19 If in any doubt, contact your supplier.

Description of the appliance

This appliance is a direct-fired gas heater. It is equipped with a fan driven by an electric motor, which forces air flow to aid air circulation in the room and also increases the amount of oxygen in the combustion chamber for efficient combustion. The air mixed with the hot flue gases emitted from the heater heats the room.

The unit is equipped with multifunctional electromagnetic protection against power supply issues, flame-out and overheating. These three types of protection guard against gas leaks and potential carbon monoxide poisoning, as well as
the risk of fire resulting from a gas leak. The gas flow control valve installed in the heater allows the amount of heat emitted to be adjusted as required

2. INSTALLATION

2.1 Connect the heater to a suitable electrical socket /230V~50Hz

2.2 Ensure that the appliance is properly earthed.

2.3 Connect the gas supply hose to the pressure regulator and connect the regulator to a suitable LPG cylinder.

2.4 Open the valve on the cylinder and check the supply hose and fittings for gas leaks. It is recommended to use an approved leak detector for this operation.

2.5 NEVER USE AN OPEN FLAME.

2.6 For automatic appliances, plug the room thermostat into the socket on the appliance and set it to the desired temperature.

3. INSTRUCTIONS FOR USE

PREPARATION FOR OPERATION

1. Check that the heater has not been damaged in transit.

2. Connect the hose and regulator assembly to the LPG cylinder by turning the nut anti-clockwise onto the cylinder valve outlet and tighten securely.

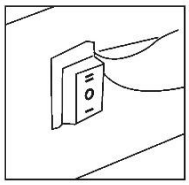
3. Open the cylinder gas valve and check all gas connections using a soapy water solution.

4. Connect the power cable to a properly earthed 220 V~, 50 Hz power supply.

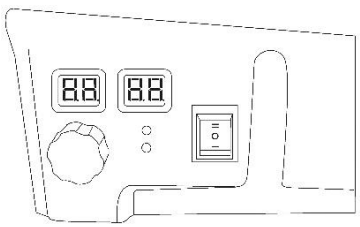
3.1 IGNITION

3.1.1 IGNITION / automatic ignition.

a. Switch the main switch to position I and the motor will start running. The digital display shows the room temperature.



b. Open the valve and switch the main switch to position II. The left display window sets the temperature and the right one shows the room temperature. It ignites automatically when the set temperature is higher than the room temperature.



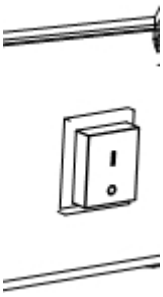
c. Adjust the gas flow pressure according to the required heat output by turning the regulator valve dial anti-clockwise to increase the pressure, or clockwise to decrease it.

d. If the flame ignites but the heater locks after a few seconds, the RESET indicator light will come on. Wait one minute, then unlock the heater by pressing the RESET button and restart it.

e. If the problem persists, contact the service department.

3.1.2 IGNITION / Manual ignition

a. Switch the main switch to the I position and check that the fan is running correctly. (Fig. 2.)



b. Press the gas valve button and repeatedly press the piezo igniter until the flame ignites. (Fig. 3-4)



c. Once the flame is lit, hold the valve button down for approximately 10 seconds. If the heater stops after releasing the valve button, wait one minute and repeat the start-up procedure, holding the valve button down for longer.

d. Adjust the gas flow pressure according to the required heat output by turning the regulator knob anticlockwise to increase the pressure, or clockwise to decrease it.

CAUTION

If ignition is difficult or erratic, before attempting to ignite again, ensure that the fan is not obstructed and that the air inlet and outlet are not blocked.

3.2 SWITCHING OFF

To stop the heater, close the gas cylinder valve. Leave the fan running until the flame goes out, then switch the fan switch to the O position.

3.3 VENTILATION

a. The heater can also be used as a fan.

b. In this case, remove the gas inlet hose and connect the heater's plug to a suitable power source.

c. Set the fan switch to the I position.

!!!WARNING

Risk of suffocation

1. Do not use the heater to heat living spaces.

2. Do not use in unventilated areas.

3. The flow of combustion and ventilation air must not be obstructed.

4. To meet the combustion air requirements of the heater in use, adequate ventilation must be ensured.

5. A lack of adequate ventilation air will result in improper combustion.

6. Improper combustion can lead to carbon monoxide poisoning, resulting in serious injury or death. Symptoms of carbon monoxide poisoning may include headaches, dizziness and difficulty breathing.

THE SMELL OF FUEL GAS

LPG and natural gas have artificial odourants added specifically to detect fuel gas leaks.

If a gas leak occurs, you should be able to smell the fuel gas. As propane (LP) is heavier than air, you should be able to smell the gas low to the floor. ANY SMELL OF GAS IS A SIGNAL FOR IMMEDIATE ACTION!

1. Do not take any action that could ignite the fuel gas. Do not use any electrical switches.
Do not pull on any power leads or extension cables. Do not light matches or any other source of flame. Do not use your mobile phone.

2. Immediately evacuate everyone from the building and away from the area.

3. Close all valves on the propane (LP) gas tank or fuel cylinder, or the main fuel supply valve located on the meter if you use natural gas.

4. Propane (LP) gas is heavier than air and can pool in low-lying areas. If you suspect a propane leak, avoid all low-lying areas.

5. Use a neighbour's telephone to call your fuel gas supplier and the fire brigade. Do not re-enter the building or the area.

6. Stay outside the building and away from the area until the fire brigade and your gas supplier have declared it safe.

7. FINALLY, have a fuel gas service technician and the fire brigade check for any gas leaks. Before returning, ask them to ventilate the building and the area. Properly trained service personnel must repair any leak, check for further leaks, and then light the appliance for you.

4. MAINTENANCE

4.1. Repairs or maintenance must only be carried out by qualified personnel.

4.2. The appliance must be inspected by a qualified technician at least once a year.

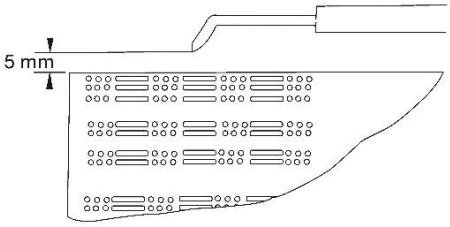
4.3. Regularly check the condition of the gas hose and gas regulator; if they need replacing, use only original spare parts.

4.4. Before carrying out any maintenance on the heater, disconnect it from both the gas and electricity supplies.

4.5. If the unit has not been used for a long period, we recommend that a technician carries out a general inspection before use. It is important to check the following:

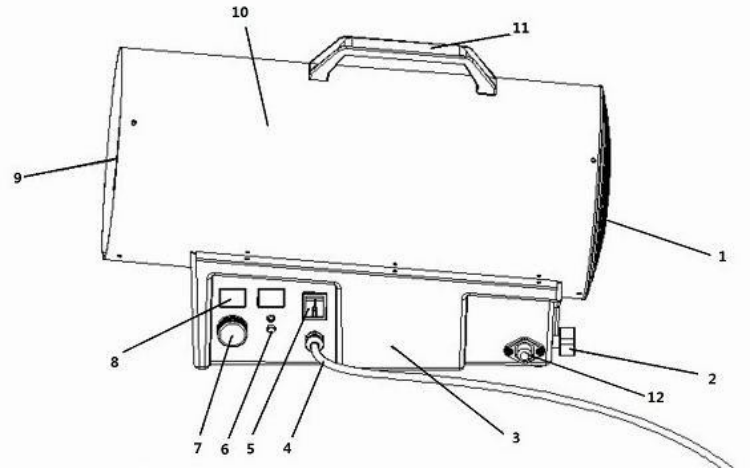
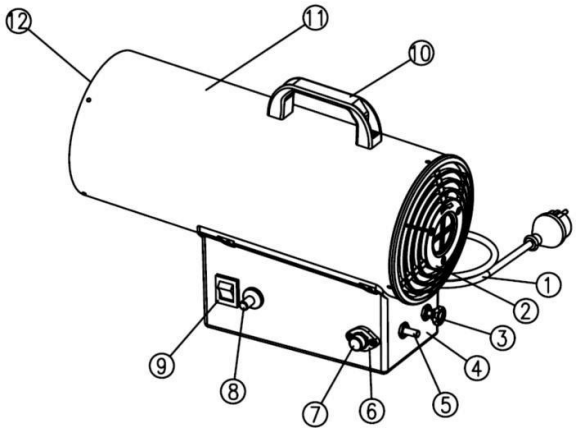
4.5.1. Check the condition of the gas supply hose regularly and, if it needs replacing, use only genuine spare parts.

4.5.2. Check the position of the ignition electrode (see Fig. 4).



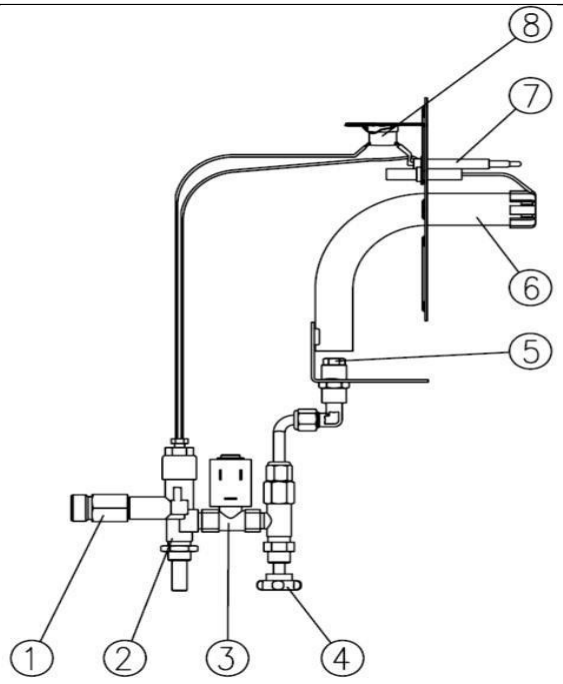
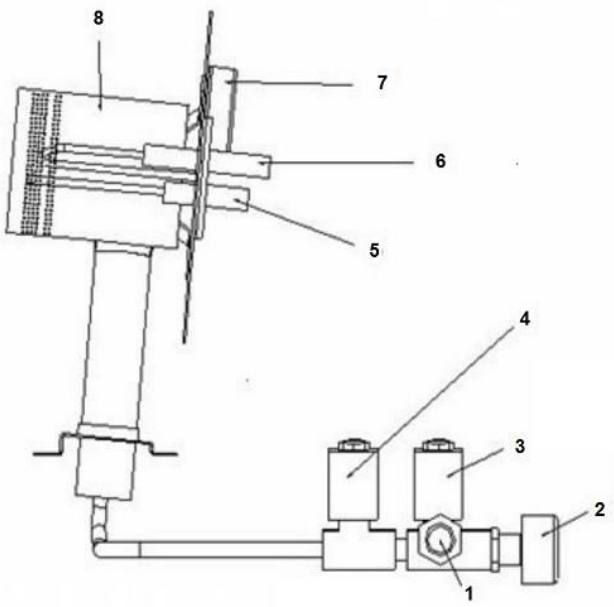
4.5.3. Check the connections of the safety thermostat and thermocouple: they must always be clean. If necessary, clean the fan blade and the interior of the heater with compressed air.

Heater design

A: (automatic control):	**B: (manual control):**
	
1. Air intake cover 2. Heat output control knob 3. Heater base / control panel 4. Supply duct 5. Power switch 6 Reset button	1. Power cable 2. Air intake cover 3. Heat output control knob 4. Heater base / control panel 5. Flame failure safety button 6. Gas connection 7. Connection plug

7 New temperature settings	8. Ignition button
8 Temperature display	9. Power switch
9. Hot air outlet cover	10. Carrying handle
10. Body	11. Body
11. Carrying handle	12. Hot air outlet cover
12. Gas connection	

GAS SUPPLY DIAGRAM

A: (automatic control)	**B: (manual control):**
	
1. Gas connection 2. Valve adjustment 3. Solenoid valve 4. Solenoid valve 5. Flame sensor 6. Ignition switch 7. Thermostat 8. Burner head	1. Gas connection 2. Flame failure protection 3. Solenoid valve 4. Gas control valve 5. Gas nozzle 6. Burner head 7. Thermocouple 8. Thermostat

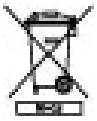
When the appliance is connected to a pressurised cylinder, the gas passes through the following components of the gas system:

Gas connection – flame failure device – solenoid valve – valve regulating the /flame size - gas nozzle - the gas is ignited by a high-voltage electric spark and burns at the burner head - the thermocouple, heated by the flame, generates a voltage - the thermostat activates the circuit by opening the solenoid valve in the flame failure device, allowing gas to flow continuously and burn in the combustion chamber.

5. TROUBLESHOOTING

Models with automatic ignition

PROBLEM	CAUSES	SOLUTIONS
The motor is not working	No power supply.	Check the terminal block using a tester.
	The room thermostat is set too low.	Set the thermostat to a higher temperature.
	The safety thermostat has tripped.	Wait for about one minute and then press the RESET button.
The motor is running, but the burner does not ignite and the heater stops after a few seconds	The gas valve on the cylinder is closed.	Open the gas valve
	The gas cylinder is empty.	Use a new gas cylinder.
	The nozzle is blocked.	Remove the nozzle and clean it.
	The solenoid gas valve is not open.	Check that the solenoid valve is working.
	There is no spark.	Check the position of the electrode.
The burner ignites but the heater stops after a few seconds	No connection to the earthing system.	Check and connect correctly.
	Faulty connection between the sensor and the safety device.	Check and connect correctly.
	Faulty safety device.	Replace the safety device.
The heater stops during operation	Excessive gas supply.	Check the pressure regulator and replace it if necessary.
	Insufficient air flow.	Check that the motor is working properly.
	Insufficient gas supply due to ice forming on the cylinder.	Check and use a larger cylinder, or two cylinders connected together.



Warning! The symbol shown indicates that the waste equipment must not be disposed of with other waste (under penalty of a fine). Hazardous components found in electrical and electronic equipment have a negative impact on the natural environment and human health.