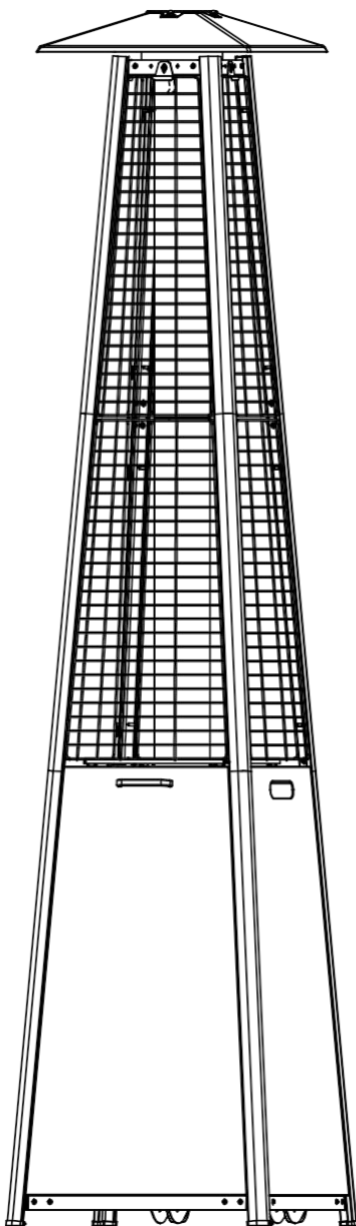


RADtec

The Source for Outdoor Heating



Tower Flame Patio Heater Instruction Manual

**WARNING: FOR OUTDOOR USE ONLY
PLEASE KEEP THE MANUAL FOR FUTURE REFERENCE!**

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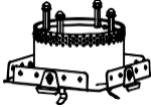
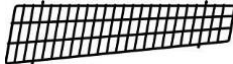
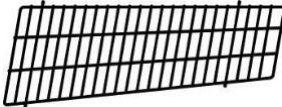

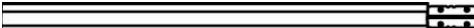






PATIO HEATER SAFETY WARNINGS

PLEASE READ THE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION AND USE.



- ⓘ This appliance must be used outdoors or in a well-ventilated area, and should not be installed or used indoors.
- ⓘ Change the gas cylinder in a well ventilated area, away from any flammable sources.
- ⓘ The cylinder must be stored outdoors or in a well-ventilated area.
- ⓘ Storage of this appliance indoors is permissible only if the gas cylinder is disconnected and ~~is~~ from the appliance.
- ⓘ Do not move this appliance when in operation, and wait until the unit has cooled before moving.
- ⓘ Do not attempt to alter the appliance in any manner. Do not paint the radiant screen, control panel or reflector.
- ⓘ Do not obstruct the ventilation holes of the cylinder housing.
- ⓘ The appliance must be installed and gas cylinder stored in accordance with local gas fitting regulations.
- ⓘ Turn off the valve at the gas cylinder or regulator before moving the appliance.
- ⓘ Repairs should be done by a qualified repairman.
- ⓘ In case of violent wind, particular attention must be taken against tilting of the appliance.
- ⓘ Check that the regulator seal is correctly fitted and able to fulfil its function.
- ⓘ Close the gas supply at the valve of the gas cylinder or the regulator after use.
- ⓘ Do not use this appliance until all connections have been leak tested.
- ⓘ In the event of gas leakage, the appliance should not be used or if lit, the gas supply should be shut off, ~~the~~ appliance should be investigated and corrected before it is used again.

- Check the tubing or the flexible hose per month and each time the cylinder is changed.
- The tubing or the flexible hose must be changed within the prescribed intervals or within one year.
- The hose assembly must be replaced prior to the appliance being put into operation if there is evidence of excessive abrasion or wear, or if the hose is damaged. A specified replacement hose assembly shall be used.
- The heater should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative that the control compartment, burners and circulating air passageways of the appliance be kept clean.
- Shut off and check heater immediately if any of the following conditions exist:
 - D The smell of gas in conjunction with extreme yellow tipping of the burner flames.
 - D Heater does not reach a proper temperature. A temperature less than 40 degrees Fahrenheit will cause restricted heat flow and the appliance will not work properly.
 - D The appliance starts making popping noises during use (a slight popping noise is normal when the appliance is extinguished).
- The regulator & hose assembly must be located out of pathways where people may trip over it, or in an area where the hose will not be subject to accidental damage.
- Any guard or other protective device removed for servicing the heater must be replaced before operating the heater.
- Children and adults should be warned of the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.
- Young children and pets should be carefully supervised when they are in the area of the heater.
- Clothing or other flammable materials should not be hung from the appliance or placed on or near the appliance.
- Do not place articles on or against this appliance. Certain material or items when stored under or near this appliance will be subjected to radiant heat and could be seriously damaged.
- Do not use or store flammable materials near this appliance.
- Do not spray aerosols in the vicinity of this appliance while it is in operation.
- Always maintain at least 36 in clearance from combustible materials.
- Always position the appliance on a firm level surface. An amply ventilated area must have a minimum of 25% of the surface area open. The surface area is the sum of the walls surface.

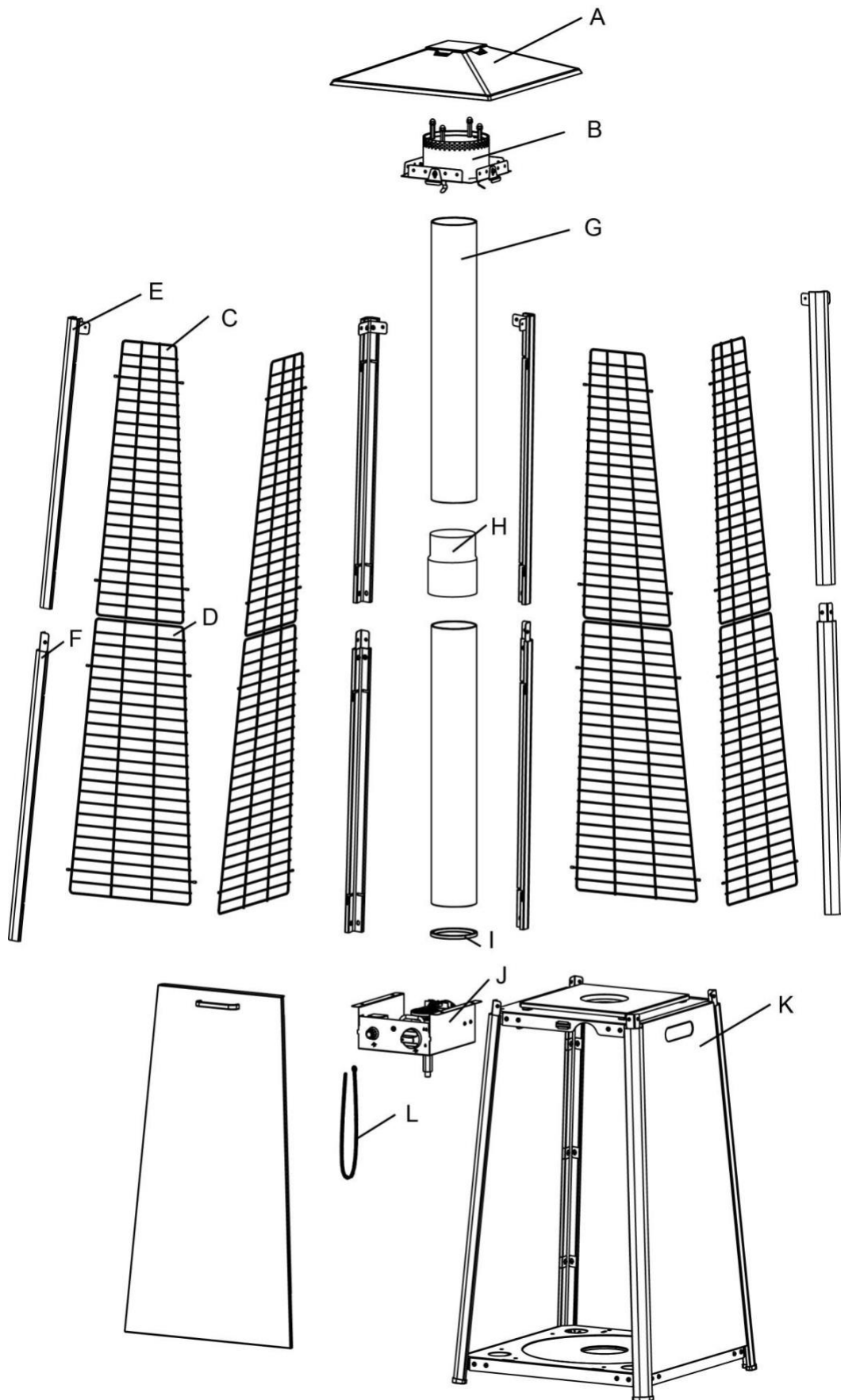
PATIO HEATER PART LIST

PART #	PART NAME	PICTURE	QTY
A	REFLECTOR		1
B	FLAME SCREEN		1
C	MESH GUARD - UPPER		4
D	MESH GUARD - LOWER		4
E	SUPPORT BAR - UPPER		4
F	SUPPORT BAR - LOWER		4
G	GLASS TUBE		2
H	CONNECTOR Glass Tube Connector		1
I	RUBBER RING		1
J	BURNER ASSEMBLY		
K	TANK HOUSING ASSEMBLY		1
L	CHAIN (ASSEMBLED WITH DOOR)		1

HARDWARE

PART #	PART NAME	PICTURE	QTY	DESCRIPTION
AA	M5 CAP NUT		4	TO CONNECT REFLECTOR AND FLAME SCREEN
BB	STANDARD SCREWS & WASHER		12	M5 X 8 SCREW & M5 WASHER TO FIX BURNER ASSEMBLY ON THE TANK HOUSING ASSEMBLY.

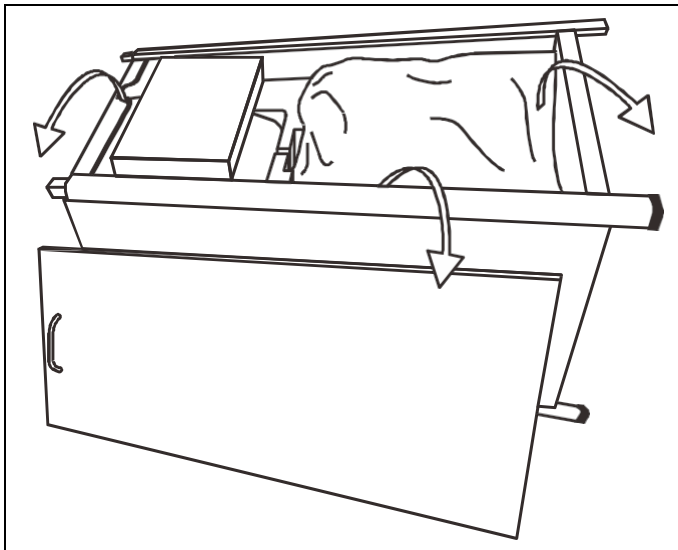
EXPLODED VIEW



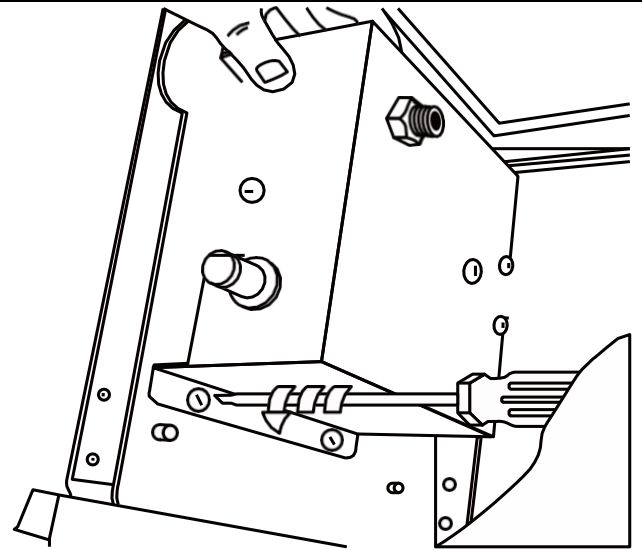
PATIO HEATER ASSEMBLY

ASSEMBLY INSTRUCTIONS

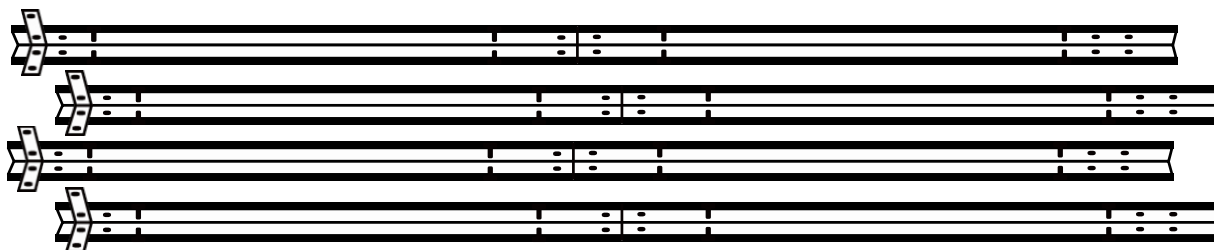
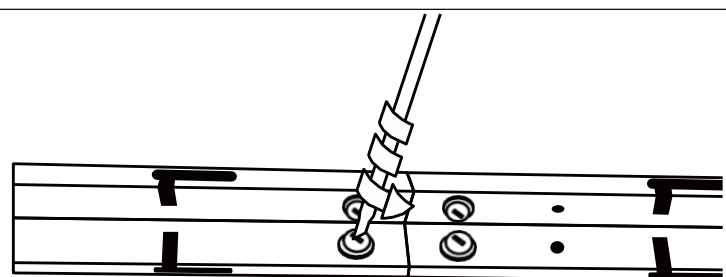
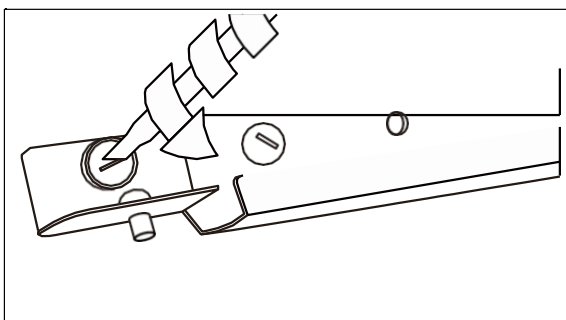
- List of Required Tools: Philips Screwdriver
- Leak Detection Solution one part detergent and three parts water
- **Assemble all nuts and bolts loosely at first. Tighten all connections after completion of assembly. This eases your work and increases the stability of the appliance.**
- Before assembly, make sure all packing material and any transmit protection must be removed.
- Small deviations in equipment may occur.
- If any part is missing or damaged, do not attempt to assemble this product, Contact customer service for replacement parts.
- Assembly should be performed on a flat, level, non-abrasive surface.
- ESTIMATED ASSEMBLY TIME: 45 minutes.



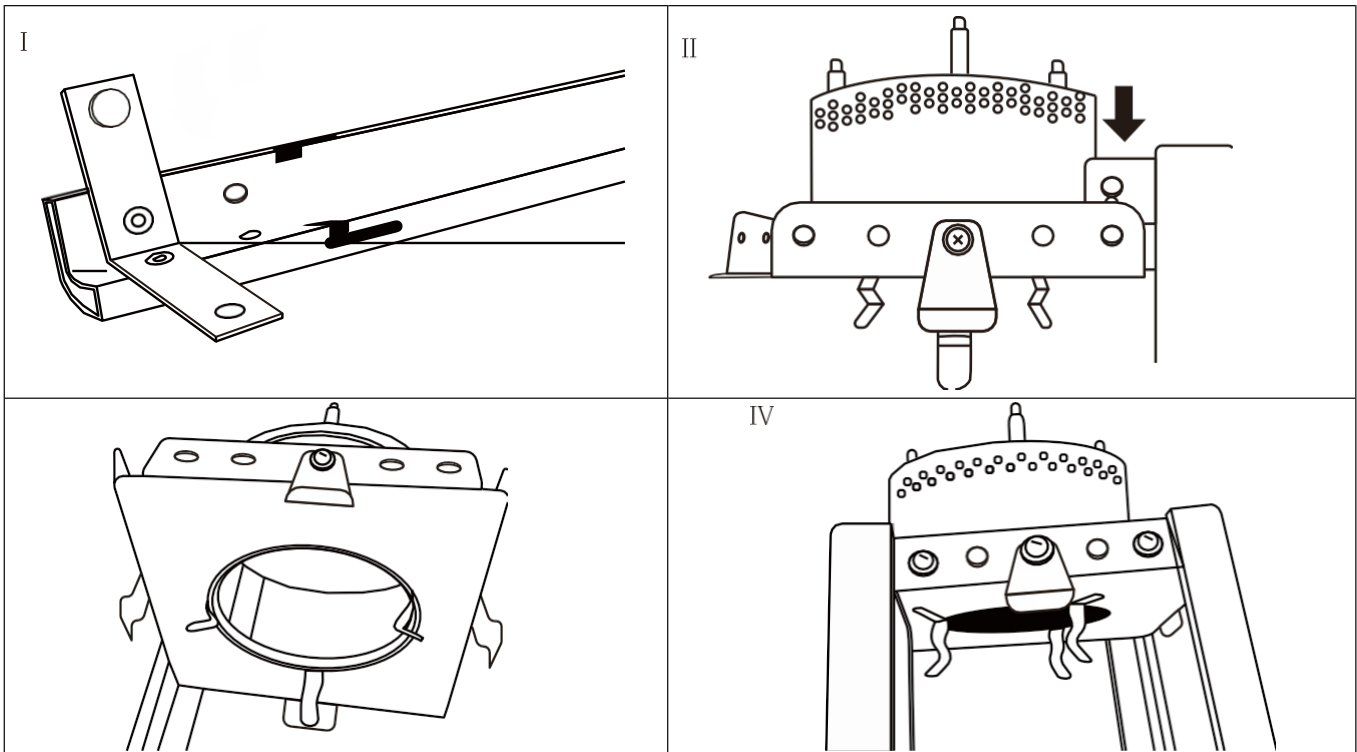
STEP 1: Lay down tank housing assembly (K) as shown above. Take off the door and take out all parts.



STEP 2: Keep the burner with the igniter side up. Fix the burner assembly (J) to tank housing using 4pcs M5 Screws and Washers (BB).

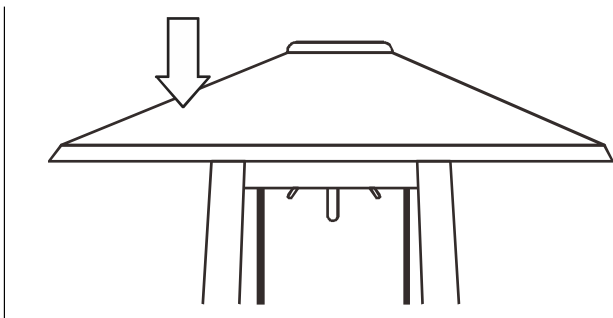


STEP 3: Unscrew 2pcs M5 screws and washers (BB) preassembled in Support Bar – Lower (F). Insert upper Support Bar (E) to lower Support Bar (F) and fix the connection using 2pcs screws and washers (BB). Repeat this step and connect other 3 sets of support bars.

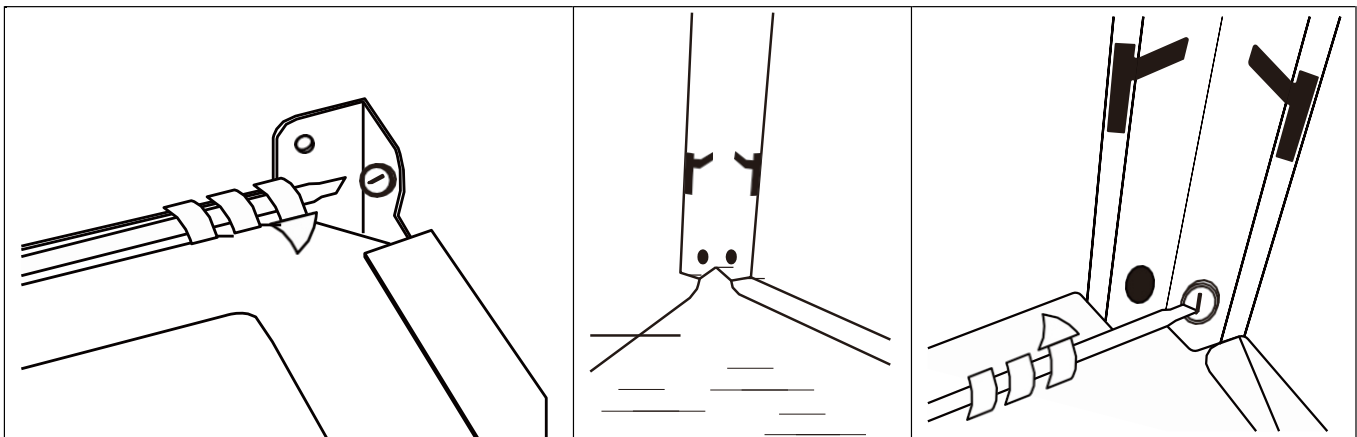


STEP 4: Attach Flame Screen (B) to the top of upper Support Bar (E) and fix the connection using 2 M5 screws and washers (See Figure I, II).

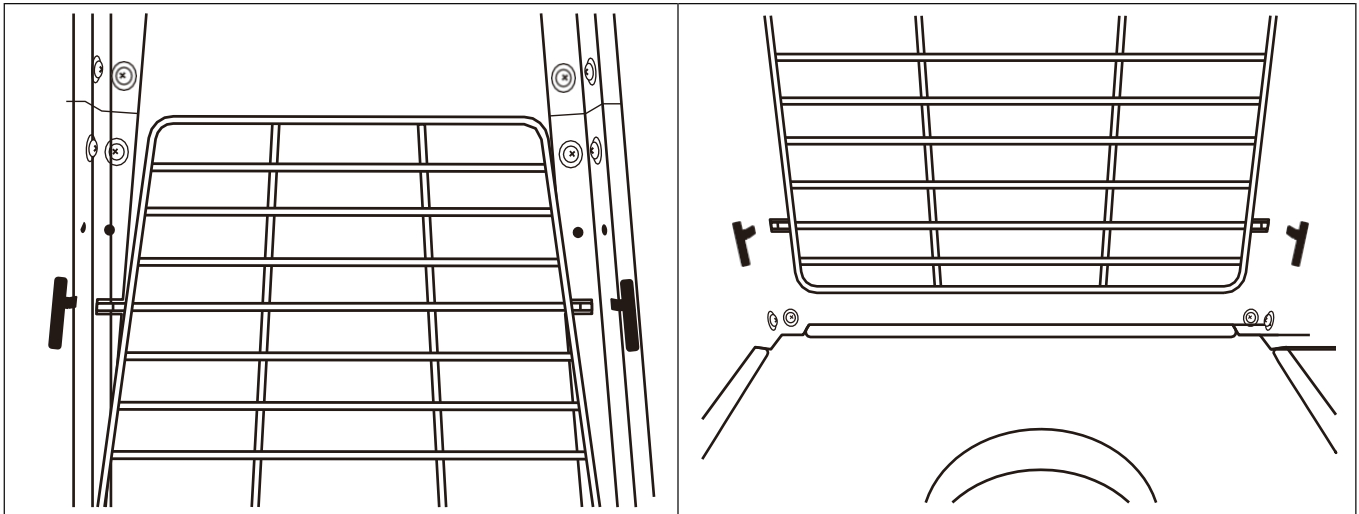
Repeat this step and connect Flame Screen (B) to other 3 sets of upper Support Bars. (See Figure III, IV)



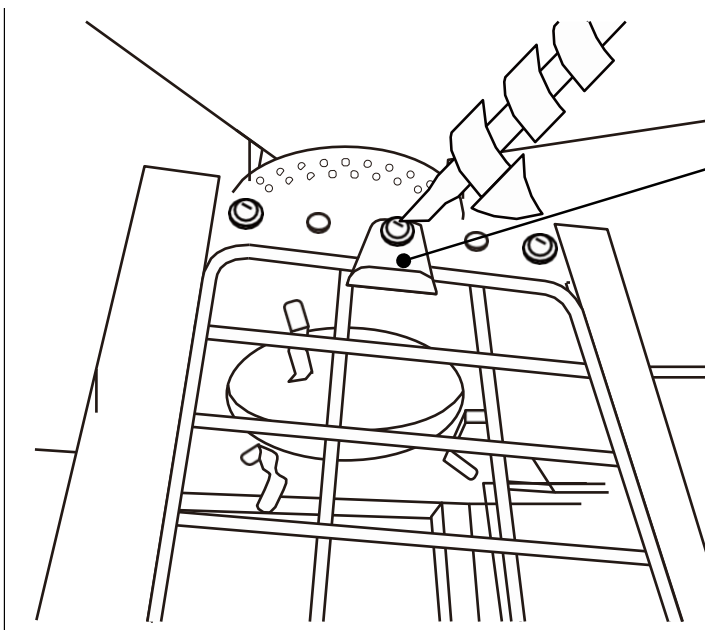
STEP 5: Place Reflector (A) on the Flame Screen (B) and fix the connection using 4 M5 CAP NUTS (AA).



STEP 6: Unscrew 8 M5 Screws and Washers (BB) preassembled on top of tank housing assembly (K). Place the lower Support Bars to the top of the tank housing assembly. Make sure to match the top ends of the tank housing assembly with the slot of the lower Support Bar. Match the threaded hole and fix each connection with 2 M5 Screws and Washers (BB)

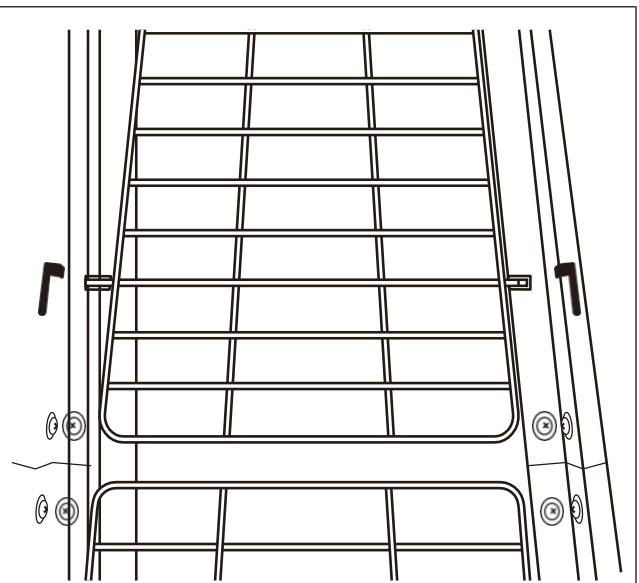
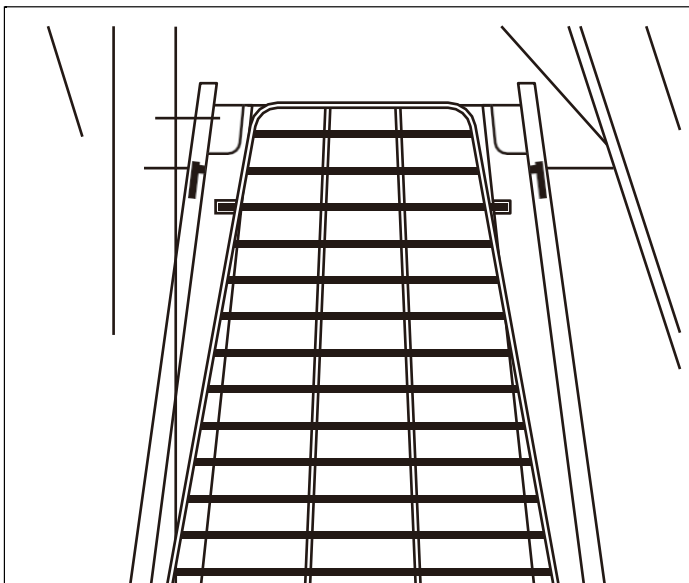


STEP 7: Insert 4 projecting ends of each lower Mesh Guard (D) into the seat slots of lower the Support Bar (F) as shown in picture. Fix all lower Mesh Guards (D) except the front side.



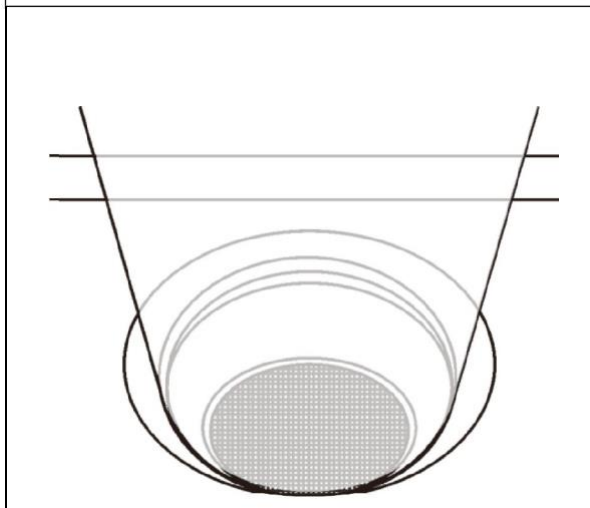
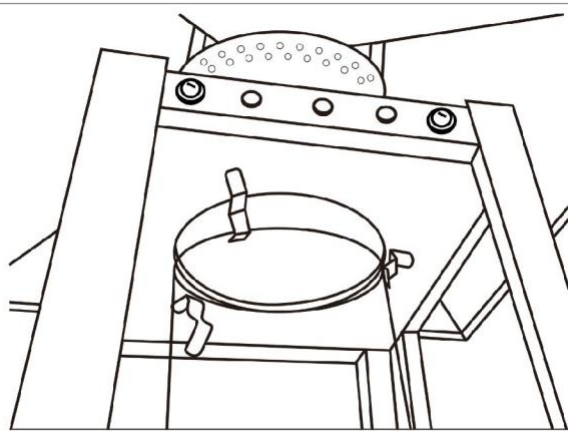
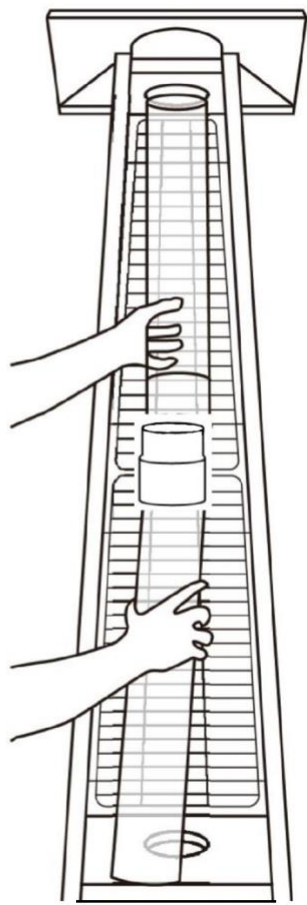
Guard Fastening Plate

STEP 8: Unscrew 4 Guard Fastening Plates preassembled with the sides of FLAME SCREEN (B).

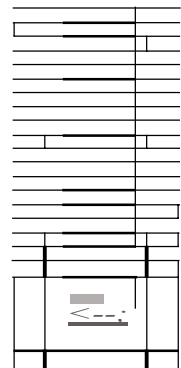


STEP 9: Fix all upper Mesh Guards to the upper Support Bar (E) except the front side.

a

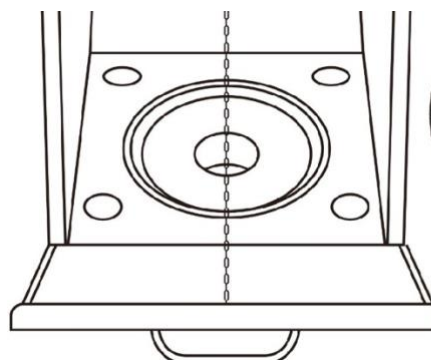
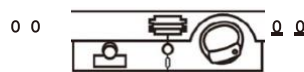
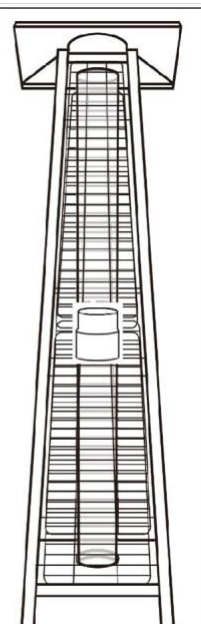
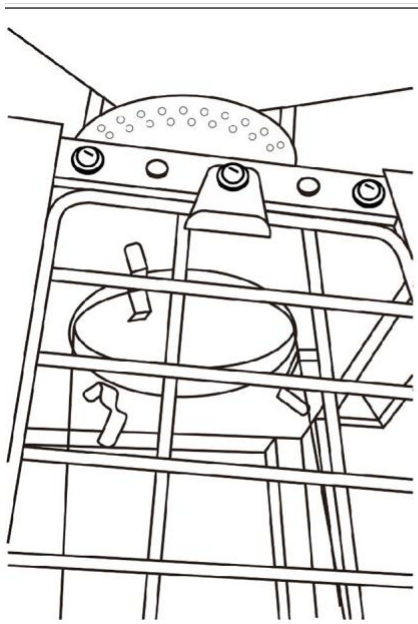


-a-



STEP 10: Put Rubber Ring (I) around the burner hole. Connect the 2 Glass Tubes (G) with Connector (H). Hold the whole glass tube assembly carefully. Insert the top end into the bottom hole of the Flame Screen as much as possible. Keep the whole glass tube assembly vertical and sit it on the Rubber Ring (1).

NOTE: GLASS TUBES ARE FRAGILE, HANDLE WITH GLASS TUBES CAREFULLY AND SLOWLY!



STEP 11: Assemble Lower Mesh Guard (D) and Upper Mesh Guard (C) in the front. Fix 4 slots. Attach the Chain (L) to the hook of the Burner Guard Fastening Plates to keep Upper Mesh Assembly (J) and close the door. Guard (C) firmly in place.

STEP 12: Insert the feet of the door into the bottom and

OPERATING INSTRUCTIONS

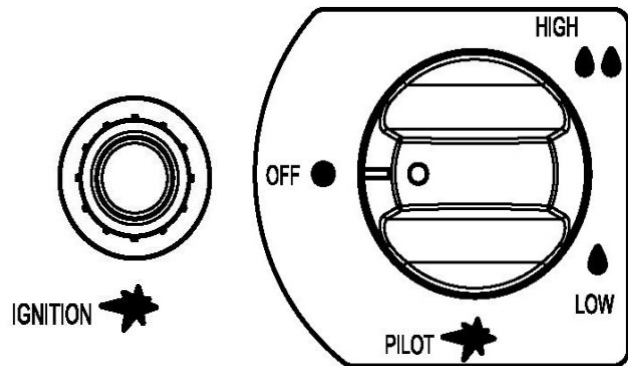
BEFORE FIRST USE AND AFTER EVERY GAS CYLINDER CHANGE, THE GAS DELIVERY SYSTEM MUST BE PURGED OF AIR BEFORE IGNITING! TO DO THIS, TURN THE CONTROL KNOB COUNTER-CLOCKWISE TO THE PILOT SETTING. PRESS KNOB IN AND HOLD FOR 3 MINUTES BEFORE ATTEMPTING IGNITION.

BATTERY REPLACEMENT

Remove impulse ignition cap from Burner Assembly (J) by turning cap counterclockwise. Install 1 AAA battery. Negative end of battery goes in first, then replace impulse ignition cap by turning cap clockwise.

TO LIGHT THE PILOT

- Check all connections prior to each use.
- Turn on main gas supply at source.
- Press to turn control knob counter-clockwise to **PILOT**, see photo on the right.
- Push the control knob in, while simultaneously pressing the IGNITION button repeatedly until the pilot flame is lit. Continue to depress the control knob for at least 10 seconds to assure the pilot remains lit after releasing the knob.
- If the pilot fails to ignite, press the knob clockwise to **OFF** and repeat.



TO LIGHT THE PATIO HEATER

- The pilot should be lit and the knob set to **PILOT**.
- Hold the knob in gently and turn counter-clockwise to **LOW**.
- After the glass has warmed up 1-5 minutes, turn knob clockwise from **Low** to **HIGH** as needed.

Note: The burner may be noisy when initially turned on. To eliminate excessive noise from the burner, turn the control knob to the pilot position. Then turn the knob to the level of heat desired.

RE-LIGHTING

- Turn Control Knob to OFF.
- Wait at least 5 minutes, to let gas dissipate, before attempting to re-light pilot.
- Repeat the "Lighting" steps.

TO EXTINGUISH

- Hold the knob in and turn the knob clockwise to 'OFF'
- Close the valve of the gas cylinder or the regulator after use.
- Close the gas bottle and allow the appliance to cool before moving.

Note: After use, some discoloration of the emitter screen is normal. Close regulator after use, allow the appliance to cool before moving.

LEAK TESTING

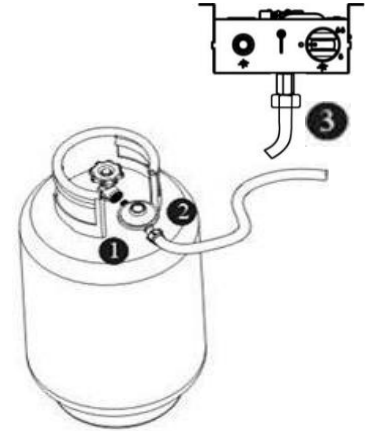
NEVER USE A NAKED FLAME TO CHECK FOR LEAKS.

NEVER LEAK TEST WHILE SMOKING.

The gas connections on this appliance are leak tested at the factory prior to shipment.

This appliance needs to be periodically checked for leaks, and an immediate check is required if the smell of gas is detected.

- Make a soap solution using 1 part liquid dish-washing soap to 3 parts water. The soap solution can be applied with a soap bottle, brush, or rag to the leak tested points shown in the figure above.
- The valve of the gas cylinder should be in the **OFF** position at this point of the leak test. Once the soapy solution is applied to the gas connections, the valve of the gas cylinder needs to be turned to the **ON** position.
- Soap bubbles will begin to form in the soapy solution if a leak is present.
- In case of a leak, turn off the gas supply. Tighten any leaking fittings, then turn the gas supply on and recheck.



Leak Test Point ① ② ③

GAS REQUIREMENTS

- The appliance must use an EN12864 or EN16129 approved gas regulator and CE approved gas hose with a length of 20in (BS3212 and EN1763-1). Choose the proper regulator according to outlet pressure in the technical table in page 14.
You will need to purchase a suitable gas hose and regulator from your local gas dealer, If the appliance does not include a gas hose and regulator.
- Never use a gas cylinder with a damaged body, valve, collar, or foot ring. A dented or rusty gas tank may be hazardous and should be checked out by a gas supplier.
- Never connect this appliance to an unregulated gas source.
- When the appliance is not in use, turn the gas cylinder OFF.
- Always perform a leak test on gas connections whenever a cylinder is connected. If bubbles form in the leak test solution, do not use. Never use a flame to test for leaks.

CONNECTING TO A GAS CYLINDER

- It is recommended you use a max. 33lb or smaller gas cylinder (maximum height 25in) refer to your gas supplier for suitable gas cylinder.
- An approved gas regulator is used according to appliance categories and countries listed in data plate. An approved flexible hose would be changed when the national conditions require it.
- Assembly of the tubing must be conducted by a qualified personnel in destination countries.
- Only change gas cylinders outdoors or in a well-ventilated area away from naked flames and any other source of ignition (candle, cigarettes, other flame producing appliances....).
- The gas cylinder must always be used in an upright position.
- Close the heater control knob by turning fully clockwise.
- Close the gas cylinder tap and then attach the regulator onto the gas cylinder.
- Tighten all connections firmly and with a spanner where appropriate. The cylinder should be located on the cylinder base.
- **Check for leaks at all joints using soapy water. If a leak is found, tighten the joint and then re-test.**

IMPORTANT SAFETY RULES

For use outdoors or in amply ventilated areas.

An amply ventilated area must have a minimum of 25% of the surface area open.

The surface area is the sum of the walls surface.

The use of this appliance in enclosed areas can be dangerous and is PROHIBITED.

Children and adults should be aware of the high operating temperatures of areas above the post when operating this heater. Children should be carefully supervised when in the vicinity of the heater.

NEVER hang anything, including clothes or any other flammable items, on this heater.

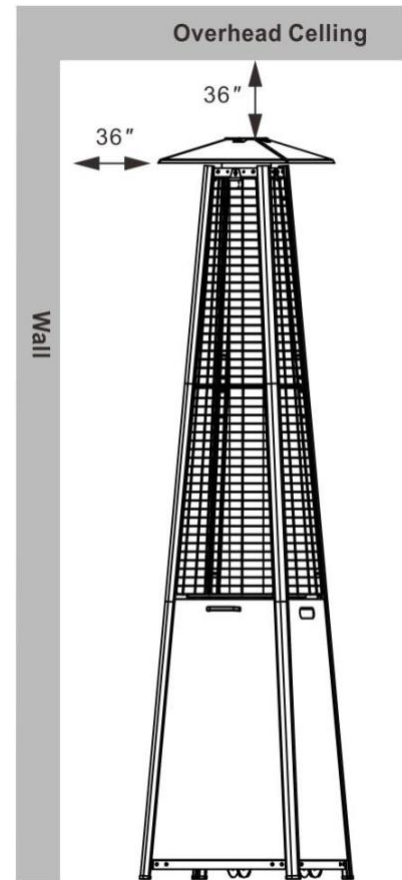
DO NOT operate this heater unless it is fully assembled with its reflector in place. Respect the minimum clearances from combustible materials.

MAINTENANCE

To enjoy years of outstanding performance from your heater, make sure you perform the following maintenance activities on a regular basis:

- Keep exterior surfaces clean.
- Use warm soapy water for cleaning. Never use flammable or corrosive cleaning agents.
- While washing your unit, be sure to keep the area around the burner and pilot assembly dry at all times. If the gas control is exposed to water in any way, **DO NOT** try to use it. It must be replaced.
- Airflow must be unobstructed. Keep controls, burner and circulation air passageways clean. Signs of possible blockage include:
 - Gas odor with extreme yellow tipping of flame.
 - Heater does **NOT** reach the desired temperature.
 - Heater glow is excessively uneven.
 - Heater makes popping noises.
- Spiders and insects can nest in burner or orifices. This dangerous condition can damage the heater and render it unsafe for use. Clean burner holes by using a heavy duty pipe cleaner. Compressed air may help clear away smaller particles.
- Carbon deposits may create a fire hazard. If any carbon deposits develop, clean dome and burner with warm soapy water.

Note: in a salt-air environment (such as near the sea), corrosion occurs more quickly than normal. Frequently check the corroded areas and repair them promptly.



SERVICING

- Please consult your local dealer for servicing this appliance and replacement of its parts. The servicing of the appliance should be carried out only by authorized personnel.
- Caution: do not use unauthorized parts or components for this appliance, only use original equipment replacement parts and components. The use of unauthorized parts or components will void the warranty and can create an unsafe condition.

STORAGE

There is no limitation on the storage of the appliance indoors provided that the cylinder is removed from the appliance.

Between uses:

- Turn control knob **OFF**
- Turn gas cylinder **OFF**

Store heater upright in an area sheltered from direct contact with inclement weather (such as rain, sleet, hail, snow, dust and debris).

If desired, cover to protect exterior surfaces and to prevent build up in air passages.

Note: Wait until heater is cool before covering.

During periods of extended inactivity or when transporting:

- Turn control knob **OFF**.
- Disconnect gas cylinder and move to a secure, well ventilated location outdoors. DO NOT store in a location that will exceed 50°C.

Store heater upright in an area sheltered from direct contact with inclement weather (such as rain, sleet, hail, snow, dust and debris).

If desired, cover heater to protect exterior surfaces and to prevent build up in air passages.

Note: Wait until heater is cool before covering

TROUBLESHOOTING

IF THE PROBLEM IS:	AND THIS CONDITION EXISTS:	THEN DO THIS:
Pilot won't light	Cylinder valve is closed	Open valve
	Blockage in orifice or pilot tube	Clean or replace orifice or pilot tube
	Air in the gas line	Open gas line and bleed it (pressing control knob in) for not more than 1-2 minutes or until you smell gas
	Low gas pressure	Replace gas cylinder
	Igniter fails	Use match to light pilot, and obtain new igniter and replace.
Pilot won't stay lit	Dirt build up around pilot	Clean dirt from around pilot
	Connection between gas valve and pilot assembly is loose	Tighten connection and perform leak test
	Bad thermocouple	Replace thermocouple
Burner won't light	Gas pressure is low	Replace gas cylinder
	Blockage in orifice	Clear blockage
	Control knob is not in "ON" position	Turn control knob to "ON" position
Burner flame is low <i>Note: Do not operate heater below 5°C(40°F)</i>	Gas pressure is low	Replace gas cylinder
	Outdoor temperature is greater than 5°C(40°F) and tank is less than 25% full	Replace gas cylinder
	Supply hose is bent or kinked	Straighten hose and perform leak test on hose
	Control knob is fully " ON"	Turn control knob to "OFF", let it cool to room temperature and check burner and orifices for blockage
Emitter glows uneven <i>Note: Bottom 2.5cm of emitter normally does not normally glow</i>	Gas pressure is low	Replace gas cylinder
	Base is not on a level surface	Place heater on a level surface
	Heater not level	Level heater
Carbon build-up	Dirt or film on reflector and emitter	Clean reflector and emitter
Thick black smoke	Blockage in burner	Turn control knob to "OFF", let it cool to room temperature and remove blockage and clean burner inside and outside.

TECHNICAL DATA

Model: H1501A & H1502A & H1505 & H1507 & H1510

Heat input $\sum Q_n(H_s)=11.2\text{kW}$

Consumption: 815g/h

PIN: 0063CL7070



Country Code	CH-ES-FR-GB-GR-IE-IT-PT		BE-CY-CZ-DK-EE-FI-GR-IT-LT-LV-MT-NL-NO-SE-SI-SK-BG-RO-TR	AT-CH-DE	PL	CZ-FR-GB-GR-IE-PT	AT-CH-DE-NL
Gas Category	I _{3+(28-30/37)}		I _{3B/P(30)}	I _{3B/P(50)}	I _{3B/P(37)}	I _{3P(37)}	I _{3P(50)}
Type of Gas	Butane	Propane	Butane/ Propane / Mixture	Butane/ Propane / Mixture	Butane/ Propane / Mixture	Propane	Propane
Gas pressure	28-30 mbar	37mbar	30mbar	50mbar	37mbar	37mbar	50mbar
Injector Marking	1.6		1.6	1.4	1.5	1.6	1.5

Warning

Read the instructions before using this appliance.

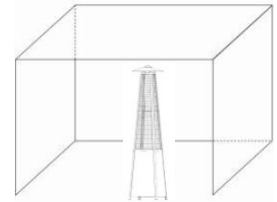
The appliance must be installed in accordance with instructions and local regulations.

The use of this appliance in enclosed areas can be dangerous and is PROHIBITED.

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