



MANUAL
**360° PILLAR OF FLAME
GAS PATIO HEATER**

FOR OUTDOOR USE ONLY

FOR YOUR SAFETY

PLEASE READ AND UNDERSTAND THIS ENTIRE MANUAL BEFORE ASSEMBLING, USING OR SERVICING THIS GAS PATIO HEATER.

FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS HEATER CAN RESULT IN DEATH, SERIOUS BODILY INJURY AND PROPERTY DAMAGE FROM FIRE, EXPLOSION, BURNS, ASPHYXIATION, AND/OR CARBON MONOXIDE POISONING.

ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THESE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER. KEEP THIS MANUAL FOR FUTURE REFERENCE.

DANGER

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operation and maintenance instructions thoroughly before installing or servicing this equipment.

DANGER

IF YOU SMELL GAS:

- Shut off gas to the appliance.
- Extinguish any open flame.
- If odor continues, keep away from the appliance and immediately call your gas supplier or fire department.

DANGER

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. An LP-cylinder not connected for use should not be stored in the vicinity of this or any other appliance.



DANGER: CARBON MONOXIDE HAZARD

FOR OUTDOOR USE ONLY!

THIS APPLIANCE CAN PRODUCE CARBON MONOXIDE, WHICH HAS NO ODOR AND CONSUMES OXYGEN.

USING THIS HEATER IN AN ENCLOSED SPACE CAN LEAD TO SERIOUS INJURY OR DEATH.

NEVER USE THIS APPLIANCE IN AN ENCLOSED SPACE SUCH AS A CAMPER, TENT, CAR, HOME, FOUR-SEASONS ROOM, GARAGE OR OTHER ENCLOSED OR UNVENTILATED AREA.

DO NOT BLOCK AIR FLOW INTO OR OUT OF THE HEATER.

This heater is a combustion appliance. All combustion appliances produce carbon monoxide (CO) during the combustion process. This product is designed to produce extremely minute, non-hazardous amounts of CO if used and maintained in accordance with all warnings and instructions.

Carbon Monoxide (CO) poisoning produces flu-like symptoms, watery eyes, headaches, dizziness, fatigue and possibly death. You can't see it and you can't smell it. It's an invisible killer. If these symptoms are present during operation of this product, get fresh air immediately!

 **DANGER: EXPLOSION AND FIRE HAZARD**

During operation, this product can be a source of ignition. This heater is red hot during use and can ignite flammables too close to the burner. Minimum heater clearances from combustible materials: 3' (1 m) from the sides and 3' (1 m) from the top.

Keep solid combustibles, such as building materials, paper or cardboard, a safe distance away from the heater.

Provide adequate clearances around air openings into the combustion chamber.

Never use this heater in spaces which do or may contain volatile or airborne combustibles, or products such as gasoline, solvents, paint thinner, dust particles, unknown chemicals or other flammable vapors and liquids.

Do not use this heater in areas with high dust content.

PROPANE SAFETY

WARNING

Fuels used in liquefied propane gas appliances, and the combustion products of such fuels, can expose you to chemicals such as benzene, which is known to the State of California to cause cancer, birth defects or other reproductive harm.

- This product is fueled by propane gas. Propane gas is invisible, odorless and flammable. An odorant is normally added to help detect leaks and can be described as a “rotten egg” smell. The odorant can fade over time so leaking gas is not always detectable by smell alone.
- Never use or store propane near high heat, open flames, pilot lights, direct sunlight, other ignition sources or where temperatures exceed 120°F (49°C).
- Propane gas vapors are heavier than air and can accumulate in low places. It can be ignited by ignition sources such as matches, lighters, sparks, lit cigarettes/cigars or open flames of any kind, even those many feet away from the original leak. If you smell gas, leave the area immediately.
- The propane cylinder must be constructed and marked in accordance with the specifications for LP gas cylinders of the U.S. Department of Transportation (in the United States) or the standard for cylinders, spheres and tubes for transportation of dangerous goods and commission, CAN/CSA-B339 (in Canada). Never connect an unregulated propane cylinder to the heater.
- The cylinder must have a connection device compatible with the connection for this appliance.
- The cylinder used must include a collar to protect the cylinder valve.
- The cylinder must have a listed overfilling prevention device.
- Never fill the propane cylinder beyond 80 percent full.

- Never install or remove the propane cylinder while the heater is lit, near flame, pilot lights or other ignition sources, or while the heater is hot to touch.
- A dented, rusted or damaged propane cylinder may be hazardous and should be checked by your cylinder supplier. Never use a propane cylinder with a damaged valve connection.
- Store or use propane gas in compliance with local ordinances and codes or with ANS/NFPA 58. Turn off propane when not in use.
- Store the propane cylinder outdoors in a well ventilated space out of reach of children. Never store the propane cylinder in an enclosed area such as a house, garage, etc. If you are storing the patio heater indoors, disconnect the propane cylinder and store it separately outdoors.
- Place the dust cap on the propane cylinder valve outlet whenever the cylinder is not in use. Only install the type of dust cap on the cylinder valve that is provided with the cylinder valve. Other types of caps or plugs may result in propane leakage.
- For more information, see chapter 5 of the standard for storage and handling of liquefied petroleum gas, ANS/NFPA 58. Your local library or fire department should have this book.

RULES FOR SAFE OPERATION

- Never leave the heater unattended when hot or in use.
- Keep out of reach of children. Carefully supervise young children when they are in the vicinity of the heater.
- Alert children and adults to the hazards of high surface temperatures. Stay away from these surfaces to avoid burning skin or igniting clothing.
- Materials or items stored under the heater will be subjected to radiant heat and could be seriously damaged.
- Do not hang clothing or any other flammable materials from the heater, or place on or near the heater.

- Keep all connections and fittings clean. Make sure the propane cylinder valve outlet is clean and the cylinder cover is clear of debris.
- Use as a heating appliance only. Never alter in any way or use with any other device.
- Do not operate this heater in conditions where the wind velocity is above 10 mph (16 kph).
- This heater will operate at reduced efficiency below 40°F (5 °C).
- Do not operate this heater near windows, air intake openings, sprinklers and other water sources.
- Keep this heater on a hard and level surface.
- Before each use, inspect the hose assembly for evidence of excessive abrasion, cuts or wear. Suspected areas should be leak tested. If the hose leaks, it must be replaced prior to operation. Only use the replacement hose assembly specified by manufacturer.
- If relighting a hot heater, always wait at least 5 minutes.
- Do NOT touch or move the heater for at least 45 minutes after use. The reflector and the glass tube are hot to the touch. Allow them to cool before touching.
- It is very important that the control compartment, burner and circulating air passageways of the heater be kept clean. More frequent cleaning may be required as necessary.
- Spiders and insects can nest in burner or orifices, which can damage the heater and render it unsafe for use.
- Carbon deposits may create a fire hazard. See the Care and Maintenance section for cleaning instructions.
- **KEEP CHILDREN AWAY FROM THE SMALL BATTERIES.** This product contains small batteries. Swallowed small batteries can be a choking hazard. Seek immediate medical attention if batteries are swallowed or inhaled.

- Installation and repair should be done by a qualified service person. The heater should be inspected before use and annually by a qualified service person. Make sure the heater is cool before servicing.
- Replace any guard or protective device removed for servicing the appliance prior to placing back in service.

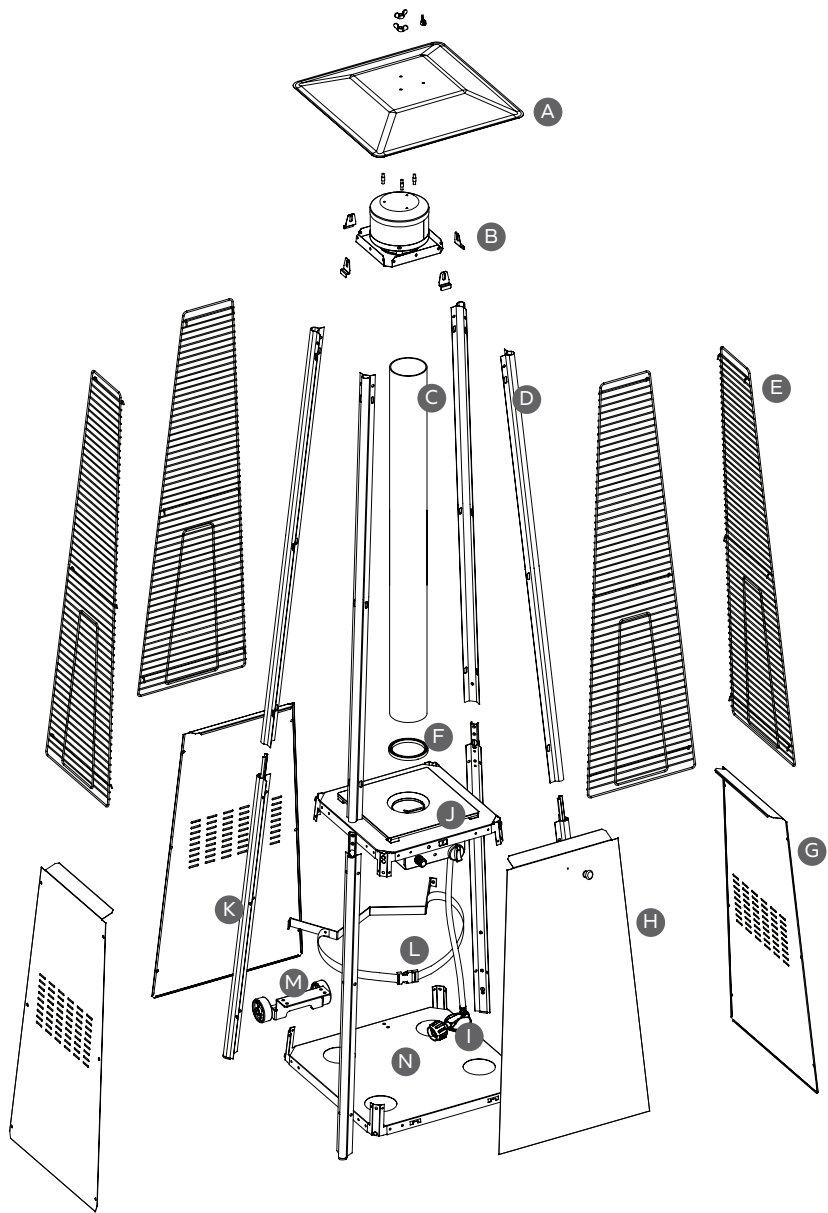
NOTES

- We cannot foresee every use which may be made of our heaters.
- Check with your local fire safety authority if you have questions about heater use.
- Other standards govern the use of fuel gases and heat producing products for specific uses. Your local authorities can advise you about these. In the United States, the installation must conform with local codes, or in the absence of local codes, follow National Fuel Gas Code ANS Z223.1/ NFPA54. In Canada, the installation must conform to local codes. If no local codes exist, follow the current National Standards of Canada CAN/ CGA-B149.2.
- Every part of the heater shall be secure against displacement and shall be constructed to maintain a fixed relationship between essential parts under normal and reasonable conditions of handling and usage. Parts not permanently secured shall be designed so they cannot be incorrectly assembled and cannot be improperly located or misaligned in removing or replacing during cleaning or other servicing.

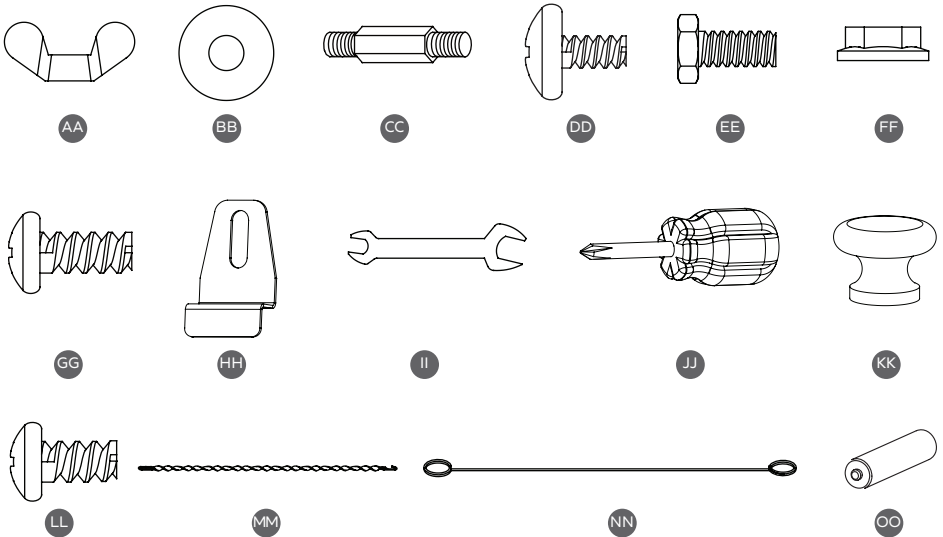
PARTS LIST

UNPACK PARTS, MAKING SURE ALL PIECES ARE PRESENT BEFORE ATTEMPTING TO ASSEMBLE.

REF	QTY	DESCRIPTION
A	1	Reflector
B	1	Flame Screen
C	1	Glass Tube
D	4	Upper Support
E	4	Protective Guard
F	1	Black Silicone Ring
G	3	Side Panel
H	1	Front Panel
I	1	Gas Hose and Regulator
J	1	Control Box Assembly
K	4	Lower Support
L	1	Block Belt
M	1	Wheel Assembly
N	1	Bottom Plate



REF	QTY	DESCRIPTION
AA	3	Wing Nut
BB	6	Small Flat Washer
CC	3	Stud
DD	42	3/16" Screw
EE	4	M6 x 12 Bolt
FF	4	M6 Flange Nut
GG	6	M5 x 12 Screw
HH	4	Bracket
II	1	Wrench
JJ	1	Philips Screwdriver
KK	1	Knob
LL	1	M4 x 6 Screw
MM	1	Chain
NN	1	Long Stem Lighter
OO	1	AA Battery



ASSEMBLY

⚠ WARNING

This product contains sharp edges. Please assemble with care.

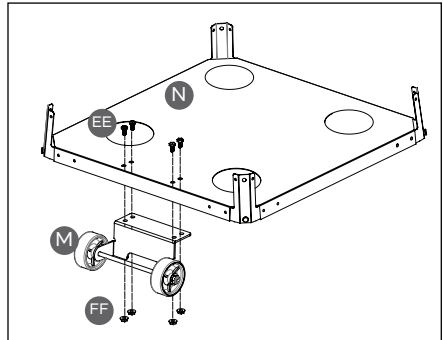
Estimated Assembly Time: 60 minutes

Tools Required for Assembly (not included):

- Phillips screwdriver with medium blade
- Leak detection solution (described later in the instructions)

STEP 1

Attach the wheel assembly [M] to the bottom plate [N] using four M6 x 12 bolts [EE] and four M6 flange nuts [FF].

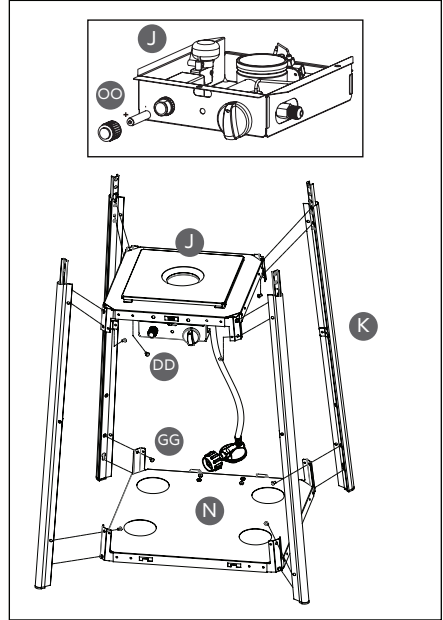
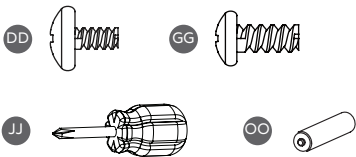


STEP 2

Unscrew the switch button in the control box assembly [J]. Load the AA battery [OO]. Replace the switch button and tighten.

Insert the pins on the bottom plate [N] onto the bottom holes in the lower supports [K] and press to secure. Secure the lower supports to the bottom plate using four M5 x 12 screws [GG].

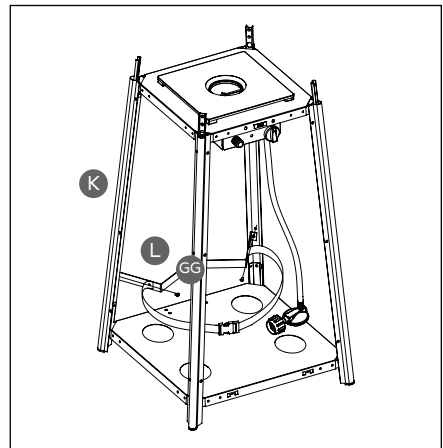
Insert the pins on the control box assembly [J] onto the top holes in the lower supports [K] and press to secure. Secure the top of the lower supports to the control box assembly using four 3/16" screws [DD].



STEP 3

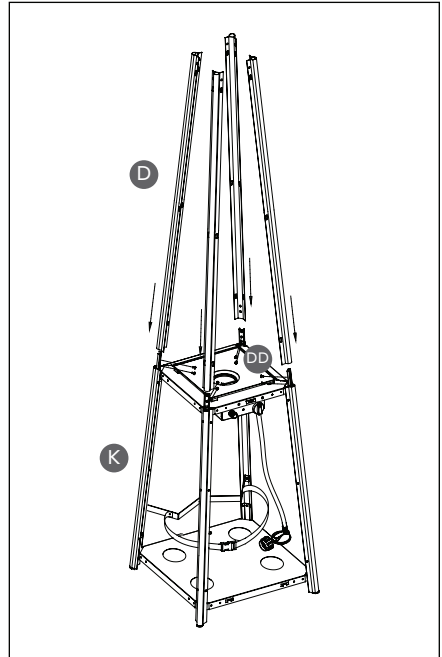
Secure the block belt [L] to the two lower supports [K] behind the front door using two M5 x 12 screws [GG].

The block belt (L) is used to secure the propane tank when it is placed inside the heater.



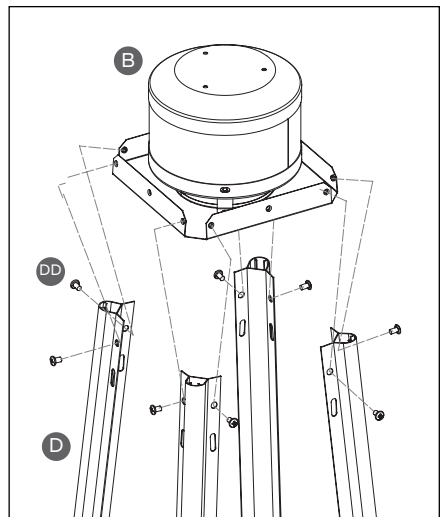
STEP 4

Insert the upper supports [D] into the lower supports [K] and secure using eight 3/16" screws [DD].



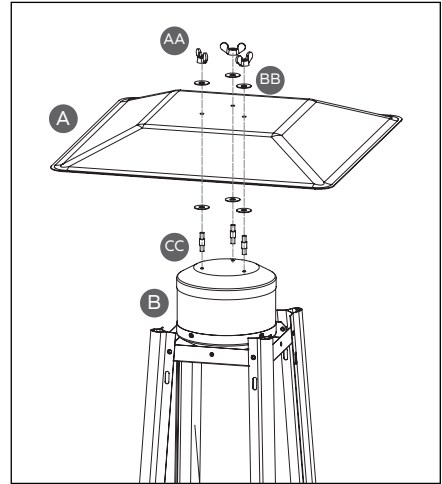
STEP 5

Attach the flame screen [B] to the upper supports [D] using eight 3/16" screws [DD].



STEP 6

Attach the reflector [A] to the flame screen [B]. Screw three studs [CC] into the flame screen. Put three small flat washers [BB] onto the studs, then put the reflector onto the studs. Secure with three flat small washers [BB] and wing nuts [AA].



STEP 7

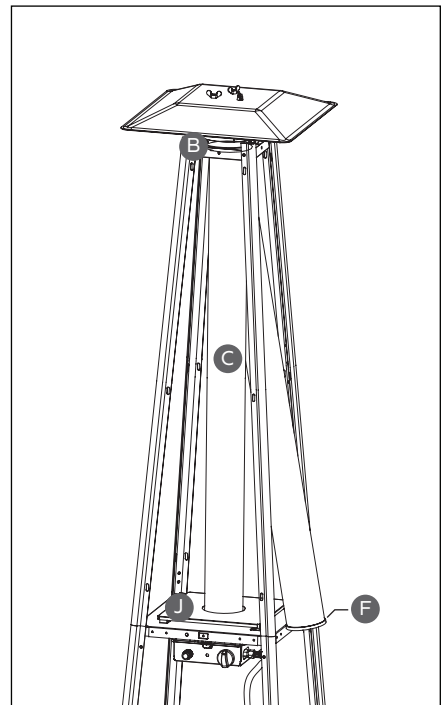
WARNING

The black silicone ring must be in place prior to operating the heater.

To aid in installation, place the black silicone ring [F] in the hole on the control box assembly [J].

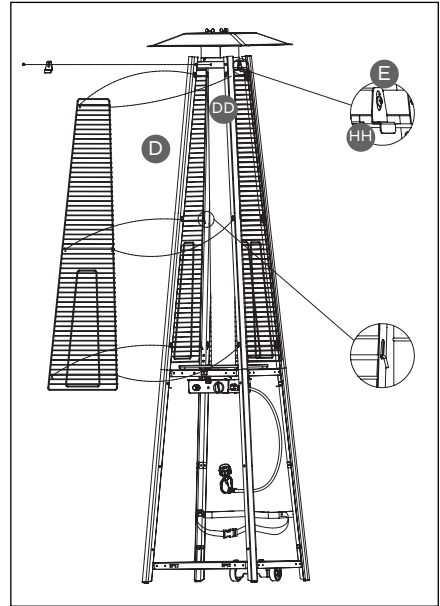
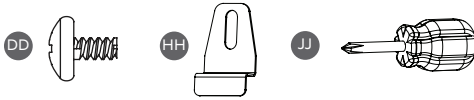
Carefully install the glass tube [C] by inserting it in-between the upper supports and then angling it up so that it can be lifted up into the center hole in the flame screen [B].

Place the bottom end of the glass tube into the hole in the control box assembly [J]. Check and ensure that the glass tube is positioned properly and is completely covering the center hole. Ensure the rim of the glass tube is sitting firmly in the black silicone ring.



STEP 8

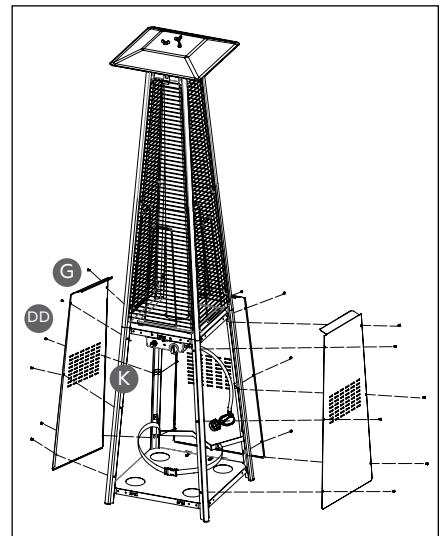
Hang the hooks of the protective guards [E] onto the holes in the upper supports [D]. Secure the protective guards with four brackets [HH] and four 3/16" screws [DD] fastened to the center hole on each side of the bottom edge of the flame screen [B].



STEP 9

Attach the three side panels [G] to the lower supports [K] using eighteen 3/16" screws [DD].

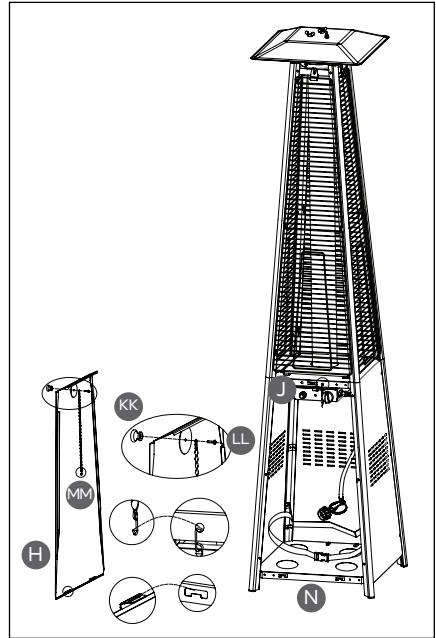
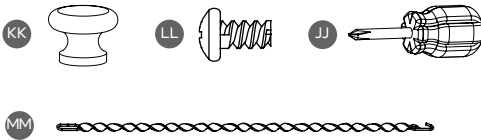
NOTE: Do not cover the front side where the control knob is.



STEP 10

Attach the knob [KK] on the front panel [H] using one M4 x 6 screw [LL].

Hang the chain [MM] on the control box assembly [J] and put the hook on the front panel [H] on the holes in bottom plate [N].



STEP 11

Before connecting your propane cylinder, please read these important instructions.

- The propane gas and cylinder are sold separately. Use a standard 20 lb. propane cylinder only – approximately 12.2" (31 cm) in diameter and 17.9" (45.5 cm) high.
- Use only propane gas set up for vapor withdrawal.
- The maximum inlet gas supply pressure: 250 psi/1750 kPa. The minimum inlet gas supply pressure: 25 psi /175 kPa. Manifold pressure with regulator provided: 11 inch W.C./2.74 kPa. The pressure regulator and hose assembly supplied with the appliance must be used.
- The propane cylinder must be constructed and marked in accordance with the specifications for LP gas cylinders of the U.S. Department of Transportation (in the United States) or the standard for cylinders, spheres and tubes for transportation of dangerous goods and commission, CAN/CSA-B339 (in Canada). Never connect an unregulated propane cylinder to the heater.
- The cylinder must have a connection device compatible with the connection for this appliance.
- The cylinder used must include a collar to protect the cylinder valve.
- The cylinder must have a listed overfilling prevention device.
- Never fill the propane cylinder beyond 80 percent full.
- Never install or remove the propane cylinder while heater is lit, near flame, pilot lights or other ignition sources, or while heater is hot to touch.
- A dented, rusted or damaged propane cylinder may be hazardous and should be checked by your cylinder supplier. Never use a propane cylinder with a damaged valve connection.
- For more information, see chapter 5 of the standard for storage and handling of liquefied petroleum gas, ANS/NFPA 58. Your local library or fire department should have this book.

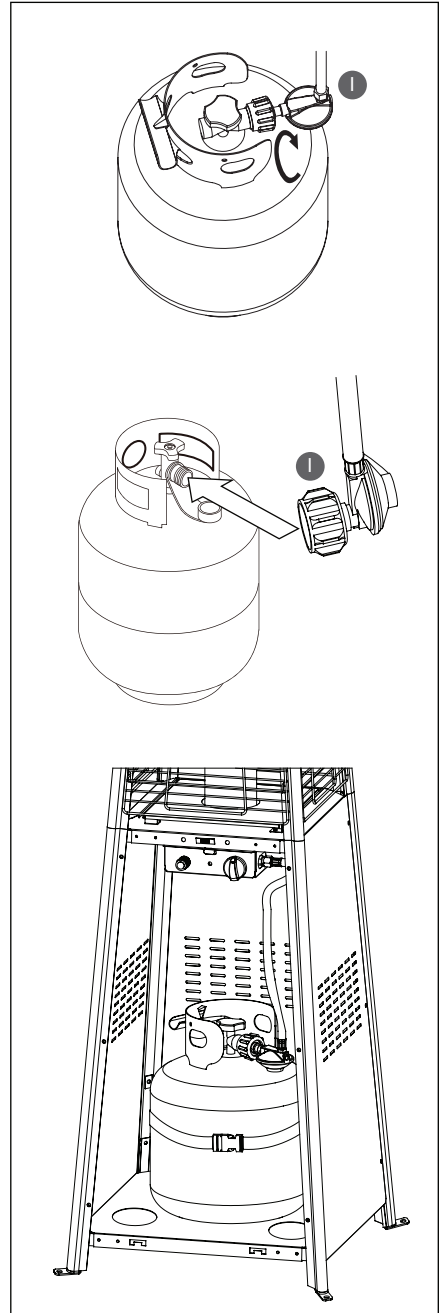
Make sure that the knob on the LP tank is closed and turned clockwise to a full stop. The cylinder supply system must be arranged for vapor withdrawal. Check that the control knob on the control unit is turned off.

Hold the gas hose and regulator [1] in one hand and insert the nipple into the valve outlet. Be sure the nipple is centered in the valve outlet. The coupling nut connects to the large outside threads on the valve outlet. Hand-tighten the coupling nut clockwise until it comes to a full stop. Firmly tighten by hand only. Do not cross-thread.

To disconnect, fully close the tank valve by turning clockwise. Turn the coupling nut counterclockwise until the gas hose and regulator detaches.

⚠ WARNING

Do not store a spare LP gas cylinder under or near this heater.



OPERATION

WARNING

READ THE RULES FOR SAFE OPERATION SECTION AT THE BEGINNING OF THIS MANUAL BEFORE PROCEEDING.

The following check lists should be consulted each time you use the heater. Make sure you have read through the entire Operation section before attempting to light the heater.

PRE-OPERATION CHECK LIST

For a safe and pleasurable heating experience, perform this check list before each use.

- I am familiar with the entire owner's manual and understand all precautions noted.
- All components are properly assembled, intact and operable. No alterations have been made.
- All gas connections are secure and do not leak. I have performed the necessary leak tests described in the next section.
- The heater is placed in an appropriate outdoors location far from combustible materials and weather conditions are appropriate. I have followed all guidelines in the rules for safe operation for placement of the heater.
- There is adequate fresh air ventilation. All burner and air circulation passages are clear.

POST-OPERATION CHECK LIST

After you have shut off the patio heater, perform this check list.

- Gas control knob is in OFF position.
- Propane cylinder valve is OFF.
- Gas hose is disconnected from the propane cylinder.

LEAK TEST

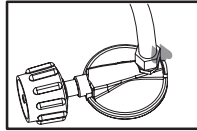
WARNING

Check all connections and fittings for leaks using soapy water. Never use a flame.

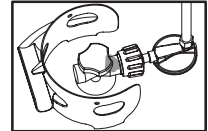
Perform all leak tests outdoors. Before performing a leak test, extinguish all open flames. NEVER leak test when smoking.

Do not use the heater until all connections have been leak tested and do not leak.

Hose/Regulator
Connection



Regulator/Cylinder
Connection



1. Make 2–3 oz. of leak check solution (one part liquid dishwashing detergent and three parts water).
2. Apply several drops of solution where the hose attaches to regulator.
3. Apply several drops of solution where the regulator connects to cylinder.
4. Make sure all patio heater and light valves are OFF.
5. Turn the cylinder valve ON.

IF BUBBLES APPEAR AT ANY CONNECTION, THERE IS A LEAK.

If there is a leak:

1. Turn the cylinder valve OFF.
2. If the leak is at hose/regulator connection: tighten connection and perform another leak test. If bubbles continue appearing, the hose should be returned to the place of purchase.
3. If the leak is at regulator/cylinder valve connection: disconnect, reconnect, and perform another leak check. If you continue to see bubbles after several attempts, the cylinder valve is defective and should be returned to cylinder's place of purchase.

IF NO BUBBLES APPEAR AT ANY CONNECTION, THE CONNECTIONS ARE SECURE.

NOTE: Whenever gas connections are joined, loosened or removed, you must perform a complete leak test.

LIGHTING

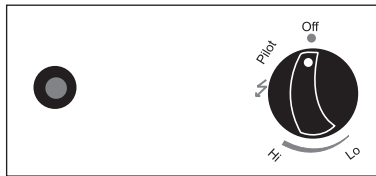
WARNING

READ THE RULES FOR SAFE OPERATION SECTION AT THE BEGINNING OF THIS MANUAL BEFORE PROCEEDING.

Do not attempt to operate until all the assembly is complete and the leak checks have been performed. Please read all of the lighting instructions and have an understanding of all the steps prior to lighting the heater.

WARNING

Be careful when attempting to manually ignite this heater. Holding in the control knob for more than 10 seconds before igniting the gas will cause a ball of flame upon ignition.



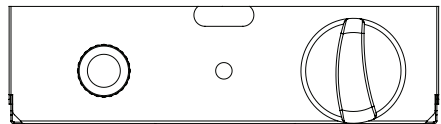
Igniter

Control knob

STEP 1

Turn the control knob to the OFF position.

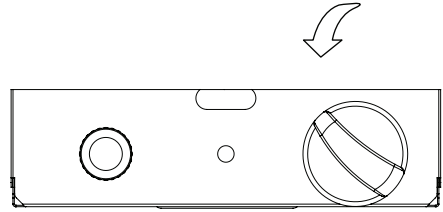
Fully open the LP cylinder valve.



STEP 2

Push the control knob in and rotate it to the pilot position.

NOTE: For initial start or after any cylinder change, hold the control knob in for 2 minutes to purge air from the gas lines.



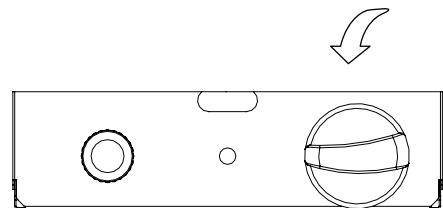
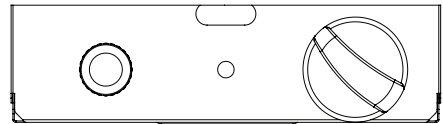
STEP 3

NOTE: The igniter is battery powered so you do not need to continuously push the button. Push and release – you may have to repeat this process until the pilot flame is visible.

Push and release the igniter button until the pilot flame is visible through the glass tube.

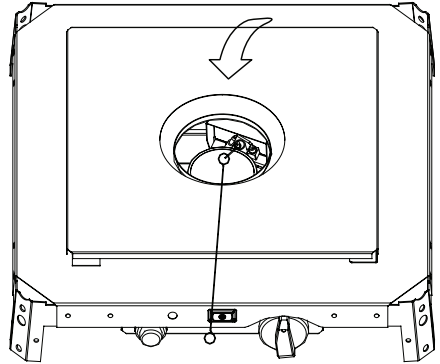
Once the pilot is lit, continue to depress the control knob for 30 seconds.

If the pilot does not stay lit, repeat this step.



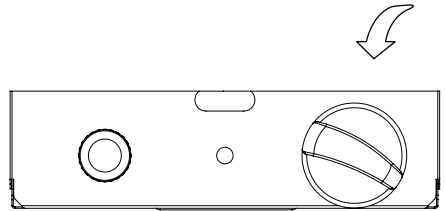
If, after repeating step 3, the unit does not light, follow the instructions below:

- a. Push in control knob and turn counterclockwise to PILOT.
- b. As you are depressing the control knob, place the long stem lighter through the glass tube to light the pilot.
- c. Repeat step 3.



STEP 4

Push in and turn the control knob to HIGH, then release the control knob. If you want a lower temperature, push in the control knob and turn counterclockwise to LOW.



RE-LIGHTING

NOTE: For your safety, the control knob cannot be turned OFF without first depressing the control knob in the PILOT position and then rotating it to OFF.

If the burner flame goes out, turn off the heater and wait at least 5 minutes or more to let the gas dissipate before re-lighting to avoid a gas explosion. Repeat the Lighting steps on the prior pages.

If you experience any ignition problems, consult the Troubleshooting section.

SHUTTING DOWN

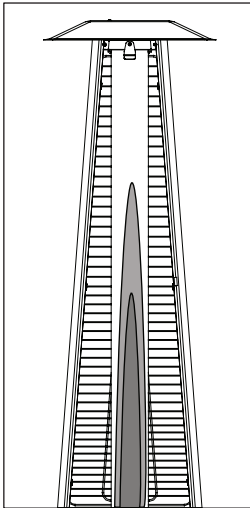
Turn the control knob clockwise to PILOT. Normally, the burner will make a slight popping sound when extinguished.

The burner will extinguish but the pilot will remain ON. To extinguish the pilot, depress control knob and continue to turn it clockwise to OFF.

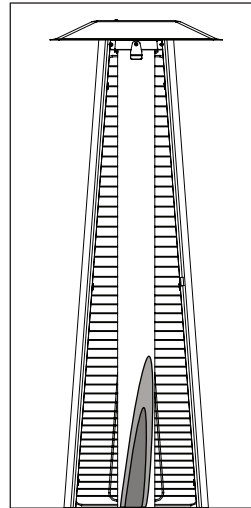
Turn the propane cylinder valve clockwise to OFF, disconnect the regulator and place the dust cap on the cylinder when the heater is not in use.

HELPFUL HINTS

- During initial use, smoke and odor from the burning of oils used in manufacturing will appear. Both smoke and odor will dissipate after approximately 30 minutes. Avoid inhaling fumes emitted from the heater during its first use. The heater should NOT produce thick black smoke.
- 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.
- In normal conditions, the height of flame is $\frac{2}{3}$ the height of glass tube when the control knob is in the Hi position and $\frac{1}{3}$ the height of the glass tube when the control knob is in the Lo position. The flame should be stable and bright with no noise nor black smoke. Any other condition is abnormal.



Normal condition



Abnormal condition

- The flame should be blue with straight yellow tops. If excessive yellow flame is detected, turn off the heater and consult the Troubleshooting section.
- After use, some discoloration of the emitter screen is normal.

CARE AND MAINTENANCE

WARNING

Do NOT touch or move heater for at least 45 minutes after use. The reflector and the glass tube are hot to the touch. Allow them to cool before touching.

To enjoy years of outstanding performance from your heater, make sure you perform the following maintenance activities.

- Use warm soapy water to clean exterior surfaces. Never use flammable or corrosive cleaning agents. While cleaning your unit, be sure to keep the area around the burner and pilot assembly dry at all times. Do not submerge the control valve assembly. If the gas control is submerged in water, do NOT use it. It must be replaced.
- Keep controls, burner and circulating air passageways clean and air flow unobstructed. Check for spiders, insects and debris. Clean burner holes by using a heavy-duty pipe cleaner. Compressed air may help clear away smaller particles. Signs of blockage include a gas odor, extremely yellow flame tips, low heater temperature, uneven glow or popping noises.
- Keep the ventilation opening(s) of the cylinder enclosure free and clear from debris.
- Visually check the portions of the hose assembly located within the confines of the heater post. Disassemble the reflector and burner and inspect the entire hose assembly at least once a year for evidence of excessive abrasion, cuts or wear. Suspected areas should be leak tested.
- Carbon deposits may create a fire hazard. Disassemble the reflector, unscrew the reflector spacer, take off the screen and take down one side of protective guards. Then take the glass tube from the heater. Wash until clear, then dry completely. After that re-assemble.
- In a salt-air environment (such as near an ocean), corrosion occurs more quickly than normal. Frequently check for corroded areas and repair them promptly.

- Use high-quality automobile wax to help maintain the appearance of your heater. Apply to exterior surfaces from the pole down. Do not apply to emitter screen or reflectors.
- Between uses, the heater should be stored with the control knob in the OFF position and the LP source disconnected.
- The heater should be stored in an upright position in a sheltered area away from direct contact with inclement weather (such as rain, sleet, hail, snow, dust and debris).
- If desired, cover the heater to protect the exterior surfaces and help prevent build-up in air passages. NOTE: Wait until the heater has completely cooled to the the touch before covering.
- Only a qualified service person should repair gas passages and associated components.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	CORRECTION ACTIONS
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 gas line	Open gas line and hold down control knob to bleed for not more than 1-2 minutes or until you smell gas
	Low gas pressure with cylinder valve fully open	Turn cylinder valve OFF and replace cylinder
	Igniter fails	Use match to light pilot or replace igniter