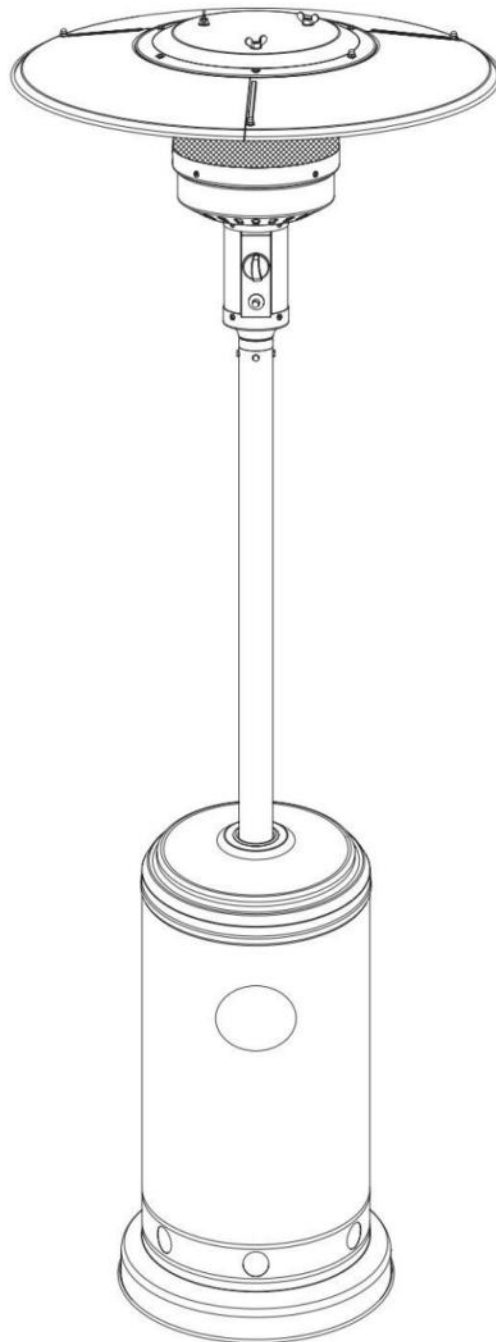


PATIO HEATER

MODEL: CZGB-A



User Manual

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IMPORTANT!

Read this user manual carefully before assembling, using, installing or servicing this heater. Keep this manual for future reference.



FOR YOUR SAFETY!

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.

If you smell gas:

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

GENERAL SAFETY INFORMATION

- This manual contains important information about the assembly, operation, and maintenance of this patio heater. General safety information is presented in these first few pages and is also located throughout the manual.
- Keep this manual for future reference and for education of new users on the usage of this product. This manual should be read in conjunction with the labeling on the product.
- Safety precautions are essential when any mechanical or propane fueled equipment is involved. These precautions are necessary when using, storing, and servicing this equipment. Using this equipment with the necessary respect and caution will reduce the risk of personal injury or property damage.
- The following symbols shown below are used extensively throughout this manual. Always pay attention to these precautions, as they are essential when using any mechanical or fueled equipment.



DANGER!

DANGER: indicates an immediately hazardous situation which, if not avoided, will result in serious injury or death.



WARNING!

WARNING: indicates a potentially hazardous situation which, if not avoided, will result in serious injury or death.



CAUTION!

CAUTION: indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury



DANGER!



CARBON MONOXIDE HAZARD

This appliance can produce carbon monoxide which has no odor. Using it in an enclosed space can kill you. Never use this appliance in an enclosed space, such as camper; tent, car; or home.



WARNING!

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



DANGER!

- 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, explosions, burns, asphyxiation, and/or carbon monoxide poisoning.
- Only people who can understand and follow these instructions should use or service this heater.

EXPLOSION/FIRE HAZARD

- Keep solid combustibles, such as building materials, paper, or cardboard, a safe distance away from the heater as recommended by the instructions. Provide adequate clearances around air openings into the combustion chamber.
- Never use the heater in spaces which contain or may contain volatile or airborne combustibles, or products such as gasoline, solvents, paint thinner dust particles, or unknown chemicals.
- During operation, this product can be a source of ignition. Keep the heater area clear and free from combustible materials, gasoline, paint thinner, cleaning solvents, and other flammable vapors and liquids. Do not use this heater in areas with high dust content.
- Never store propane near high heat, open flames, pilot lights, direct sunlight, other ignition sources, or where temperatures exceed 49 °C.
- Propane vapors are heavier than air and can accumulate in low places. If you smell gas, leave the area immediately.
- Never install or remove a propane cylinder while the heater is lit or near an open flame, pilot light, other ignition sources, or while heater is hot to the touch.
- This heater becomes red hot during use and can ignite flammables that are too close to the burner. Keep flammables at least 120 cm from both the top and sides. Keep gasoline, other flammable liquids, and vapors far away from this heater.
- The propane cylinder must always be stored outdoors in a well-ventilated space. Never store propane cylinders in an enclosed area (house, garage, etc.). If the heater is to be stored indoors, disconnect the propane cylinder for outdoor storage.

CARBON MONOXIDE HAZARD

- 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. Do not block air flow into or out of the heater.
- 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, move away from the heater and get fresh air immediately!
- For outdoor use only.
- Never use inside houses or other unventilated or enclosed areas.
- This heater consumes air (oxygen). Do not use in unventilated or enclosed areas to avoid endangering your life.



DANGER!

- 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. This odorant can fade overtime, so leaking gas is not always detectable by smell alone.
- Propane gas is heavier than air and leaking propane will sink to the lowest level possible. It can be ignited by up to several feet away from the source leak, and can be ignited by ignition sources including matches, lighters, sparks, or open flames. Use only propane gas setup for vapor withdrawal.
- Propane gas should be stored or used in compliance with local ordinances and codes.
- Turn off propane when not in use.



WARNING!

Burn Hazard

- Never leave heater unattended when hot or in use.
- Keep out of reach of children.



CAUTION!

Service Safety

- Keep all connections and fittings clean. Make sure the propane cylinder valve outlet is clean.
- Inspect hose before use. Do not use the heater if there is evidence of abrasion or wear.
- During setup, check all connections and fittings for leaks by using soapy water. Never use a flame.
- Use as a heating appliance only. Never alter in any way or use with any device.
- Check entire hose at least once annually.



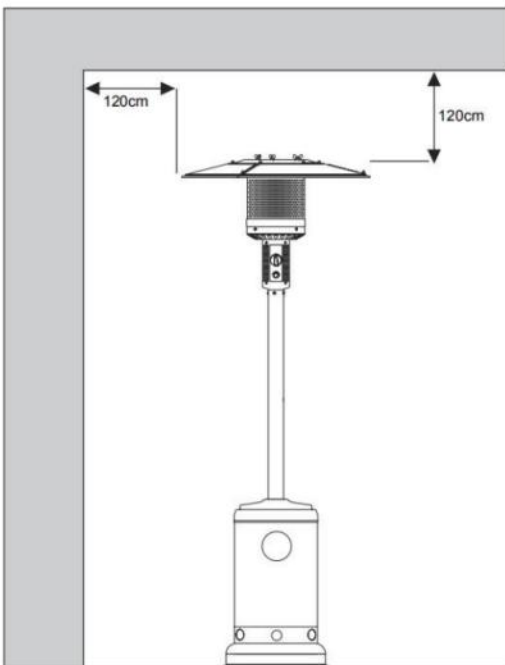
WARNING!

- Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.
- Young children should be carefully supervised when they are in the area of the heater.
- Clothing or other flammable materials should not be hung from the heater or placed on or near the heater.
- Any guard or other protective device removed for servicing the heater must be replaced prior to operating the heater.
- Installation and repair should be done by a qualified service person. The heater should be inspected before initial use and at least once annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative that control compartment, burners, and circulating air passageways of the heater be kept clean.

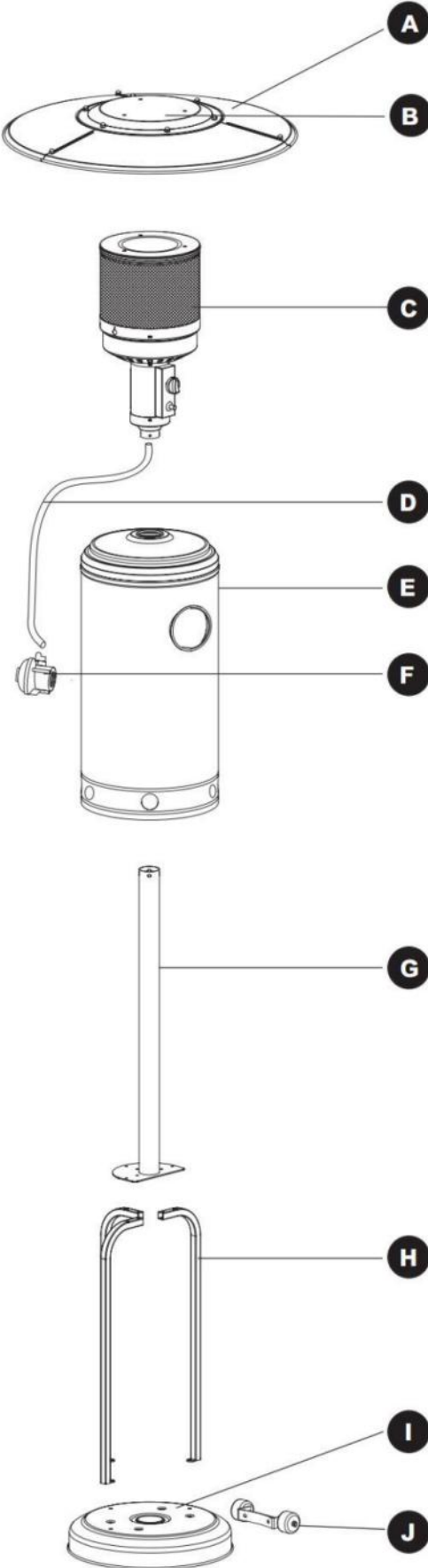


CAUTION!

Minimum heater clearances from combustible materials should be at least 120cm from both the top and the sides.









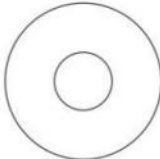

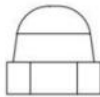


PARTS LIST



No.	Parts	Quantity
A	Reflector Fan Plates	3
B	Reflector Center Plate	1
C	Head Assembly	1
D	Gas Hose(Optional)	1
E	Tank Housing	1
F	Regulator(Optional)	1
G	Post Support	1
H	Support Legs	3
I	Base	1
J	Wheel Assembly	1

Hardware Description (Actual Sizes as Shown)

No.	Picture	Quantity	Description
AA		2	M8 Nut
BB		5	M8X16 Bolt
BB		6	M6 Flang Nut
BB		4	Stainless Steel Bolt(Pre-installed)
BB		6	M6X30 Bolt

FF		3	Reflector Stud
GG		10	Φ8 Washer
HH		9	M6X8 Screw
II		9	Cap Nut
JJ		3	Wing Nut
KK		1	Wrench (Not Actual Size)

NOTE: It is recommended to organize the hardware in order of installation steps before installing the product.

Additional Requirements

The following tools and steps are necessary for the proper assembly and use of your heater. DO NOT attempt to assemble and use without proper tools and steps.



Two adults are required to assemble this product

-Philips screwdriver with medium blade (not included)

-Open wrench (included)

-Leak-test solution (**Instructions on how to make this solution are included in Leak Check**)

NOTE: You must follow all steps to properly assemble the heater.

A. Specifications

- This heater is best used with propane gas
- Max. wattage: 13000 watts
- Min. wattage: 5000 watts
- Consumption:

APPLIANCE CATEGORY:	I3+(28-30/37)		I3B/P(30)	I3B/P(50)	I3B/P(37)
TYPES OF GAS:	Butane	Propane	Butane, propane or their mixtures	Butane, propane or their mixtures	Butane, propane or their mixtures
GAS PRESSURE:	28-30mbar	37 mbar	30 mbar	50mbar	37mbar
OUTLET PRESSURE OF REGULATOR:	30mbar	37 mbar	30 mbar	50mbar	37mbar

- Using the proper regulator according to outlet pressure of regulator as showed in the table above.

B. Table of injector

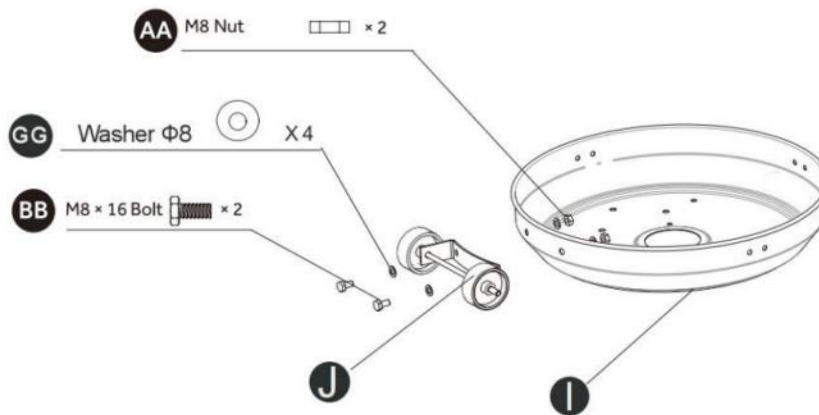
APPLIANCE CATEGORY:	I3+(28-30/37)		I3B/P(30)	I3B/P(50)	I3B/P(37)
TYPES OF GAS:	Butane	Propane	Butane, propane or their mixtures	Butane, propane or their mixtures	Butane, propane or their mixtures
GAS PRESSURE:	28-30mbar	37 mbar	30 mbar	50mbar	37mbar
TOTAL HEAT INPUT (H _s): (Q _n)	13kW (Butane:945g/h; Propane:928g/h)				
INJECTOR SIZE:	1.90 mm for main burner 0.18 mm for pilot burner		1.70 mm for main burner 0.18 mm for pilot burner	1.80 mm for main burner 0.18 mm for pilot burner	
The marking, for example, 1.90 on the injector, indicates that the size of injector is 1.90mm					

INSTALLATION STEPS

NOTE: It is recommended to install the heater in accordance with the following steps. You can adjust the installation steps based on your actual situation.

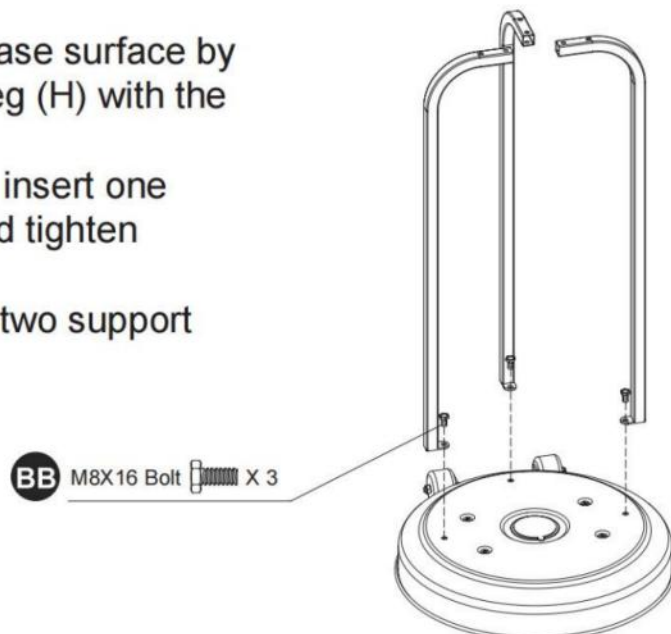
1. Attaching the Wheel Assembly to the Base

- Align the two holes on the wheel assembly (J) with the two holes on the base (I).
- Insert two M8 * 16 bolts (BB) and four washer $\phi 8$ (GG) into the aligned holes.
- Turn the base upright, then tighten the bolts and two M8 nuts (AA) using the wrench, Ensure that the wheel assembly is parallel to the base.



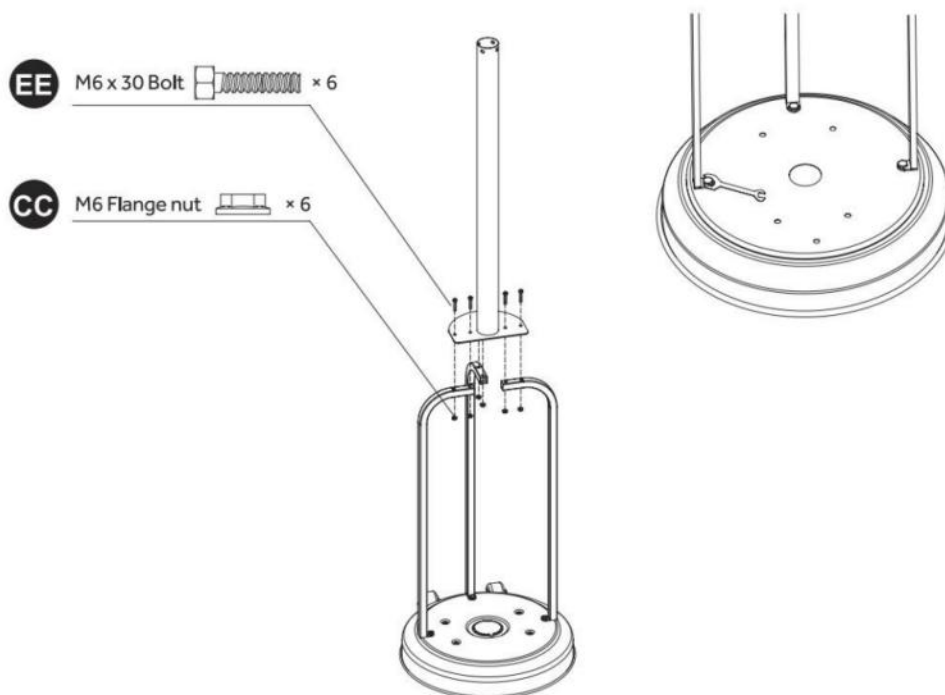
2. Attaching the Support Legs to the Base

- Attach one support leg onto the base surface by aligning the hole on the support leg (H) with the hole on the base surface.
- Hold the support leg firmly. Then, insert one M8 * 16 bolt (BB) into the hole and tighten with the wrench.
- Complete the installation of other two support legs using the same method.



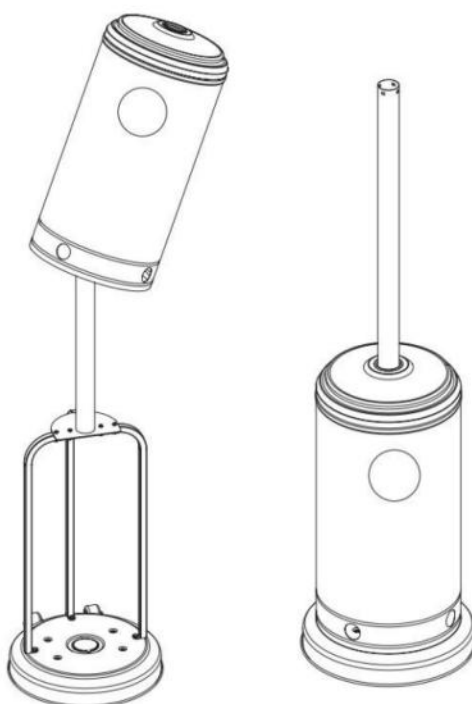
3. Attaching the Post Support

- Align the six holes on the post support (G) with the six holes on the support legs (H).
- Insert six M6 x 30 bolts (EE) into the holes and then tighten with six M6 flange nuts (CC) using the wrench.



4. Placing the Tank Housing

Insert the tank housing (E) onto the post support (G) and lower it until it rests on the base



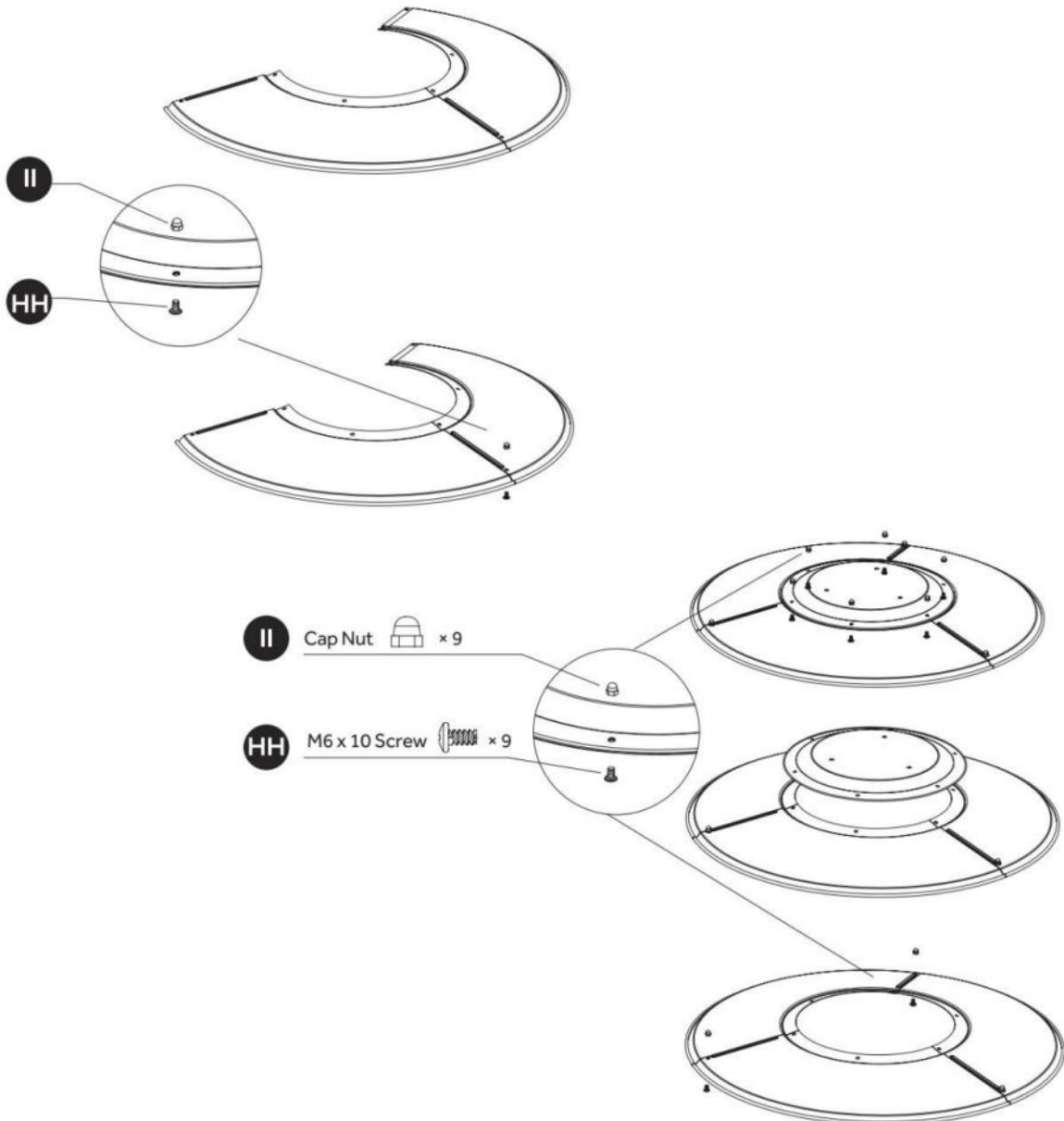
5. Assembling the Reflector Center Plate and the Three Reflector Fan Plates



WARNING! Remove the protective cover before assembly.

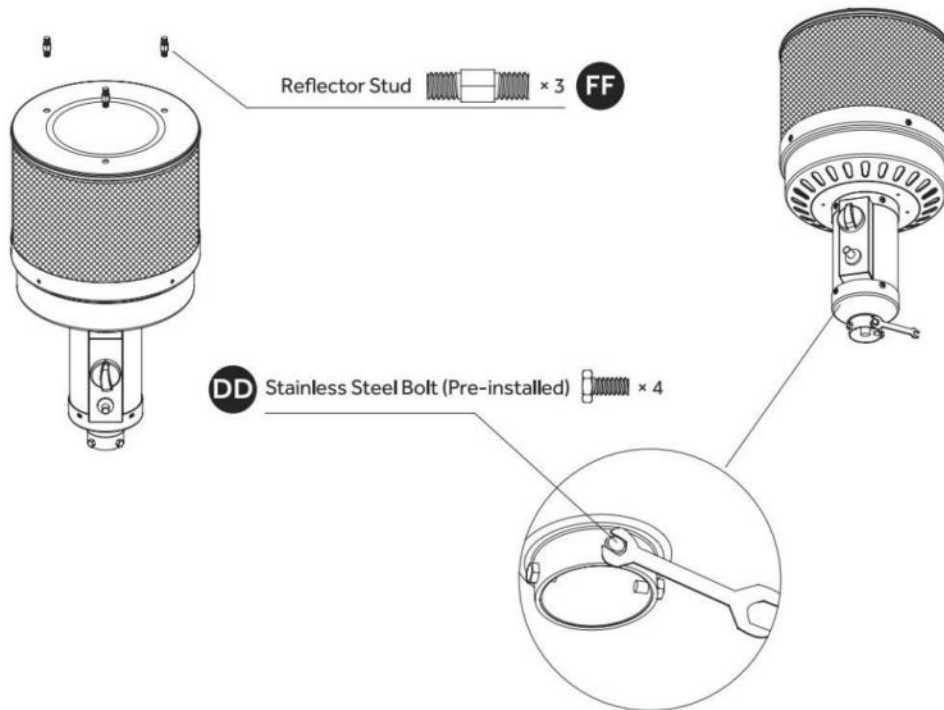
NOTE: Before assembling the reflector center plate, only tighten the three screws on the edge of the reflector. If the heater come with one piece reflector, then skip this step and go to next step directly.

- Slide two reflector fan plates (A) together with their holes aligned. Then, insert one M6 x 8 screw (HH) from the bottom up.
- Keep the screw inserted by firmly pressing with one hand and screw one cap nut (II) onto the screw clockwise with the other hand.
- Repeat these steps until all reflector fan plates are connected.
- Place the center plate (B) on the middle of the reflector-fen plates and repeat the above steps to finish the installation of the other six screws in the middle.



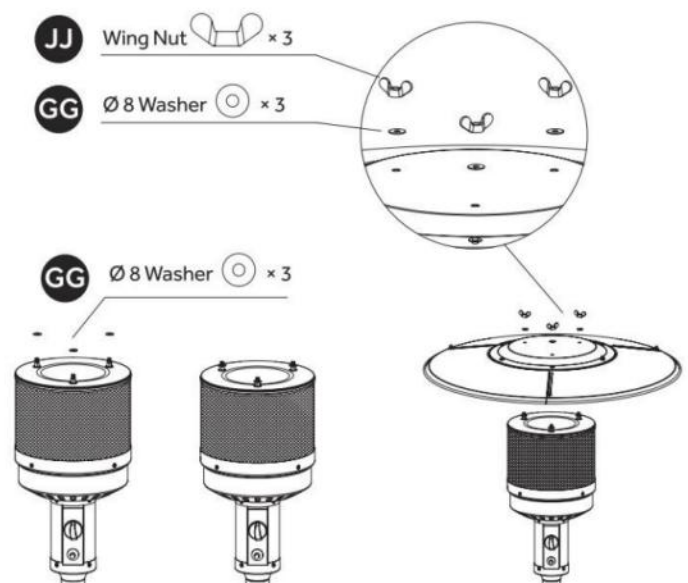
6. Attaching the Reflector Studs to the Head Assembly

- Insert the three reflector studs (FF) into the three holes on the top of the head assembly (C).
- Tighten the studs securely.
- Unscrew the four pre-installed stainless steel bolts (DD) of the head assembly with a wrench.



7. Assembling the Head Assembly to the Reflector

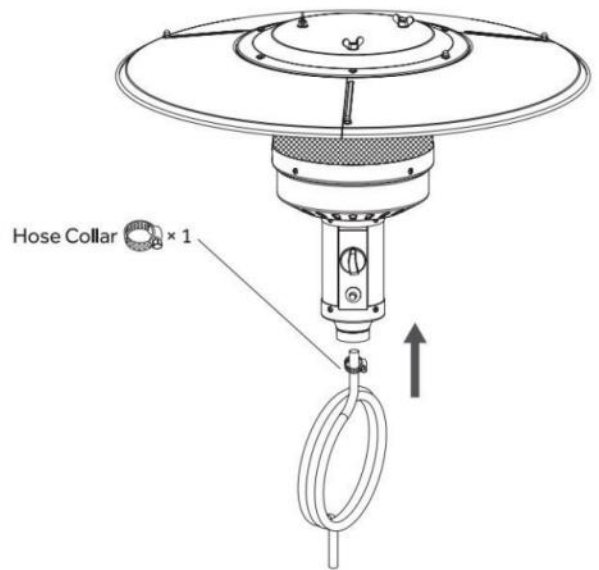
- Slide three $\varnothing 8$ washers (GG) over the threaded end of the studs.
- Attach the head assembly to the reflector by inserting the reflector studs into the three holes on the reflector center plate.
- Place three more $\varnothing 8$ washers over the studs and secure the reflector in place using three wing nuts (JJ).



8. Attaching the Gas Hose to the Head Assembly

- Slide a hose collar over the end of the hose and leave it slightly loose.
- Push the end of the hose onto the nozzle on the head assembly as far as it will go.
- Tighten the hose collar screw with a screwdriver.

Note: If your hose is new, it will probably be quite stiff. Soaking it in warm water beforehand for 15 to 20 minutes will soften it up a little and make it easier to attach.

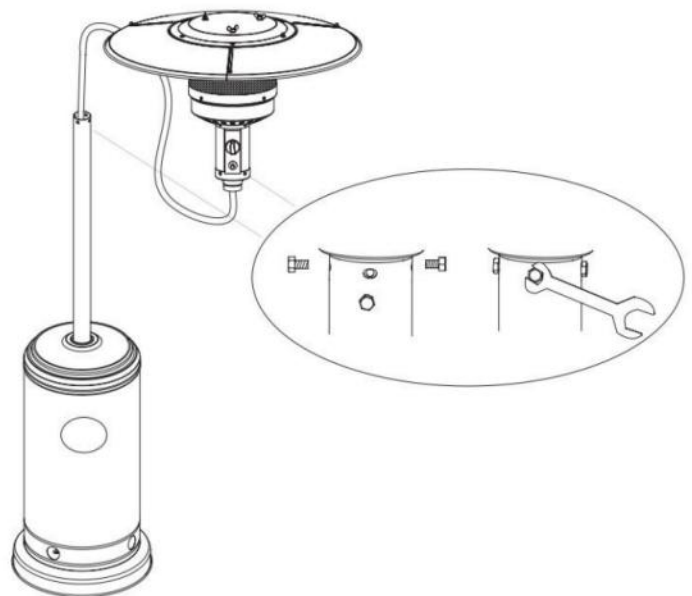


9. Attaching the Head Assembly and Reflector to the Post Support

- Route the gas hose down through the post support (G).

NOTE: To ensure your safety, one person should hold the head assembly while the other person puts the gas hose inside it by holding the post support firmly with one hand.

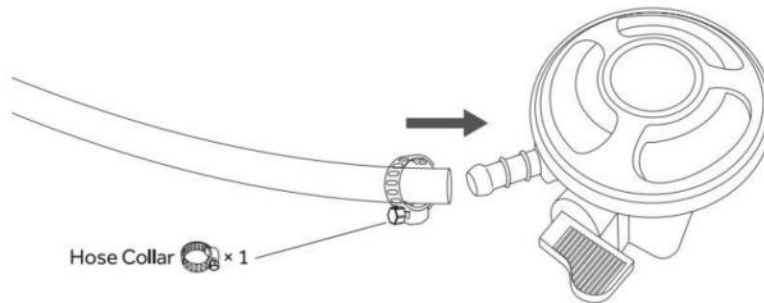
- Align the four holes on the head assembly (C) with the four holes on the post support (the variable control knob should be on the opposite side of the wheel assembly).
- Insert the four detached stainless-steel bolts into the four holes.
- Tighten with a wrench.



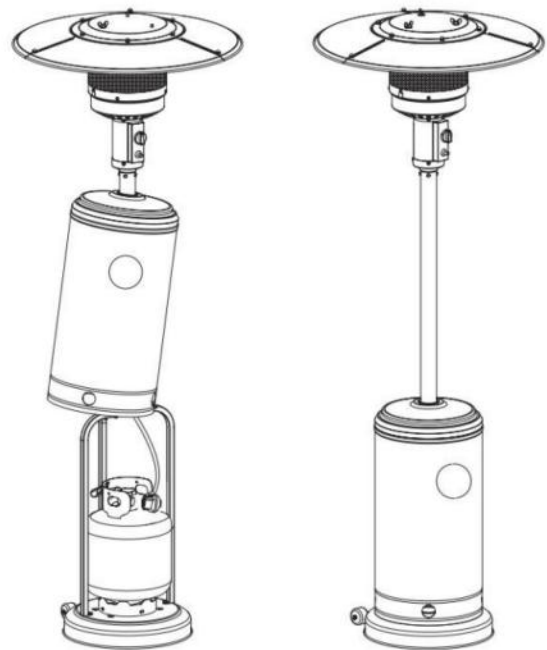
10. Connect the Gas Hose and Regulator to Cylinder

Specifications: Use only 31.8 cm (diameter) x 69 cm (tall) 15 kg maximum capacity propane cylinders

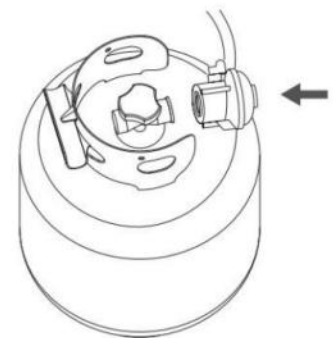
- Attach the other end of the gas hose onto the regulator using the same method as above (refer to Attaching the Gas Hose to the Head Assembly).



- Lift the tank housing up and rest it on the post support. To prevent it from falling off, fix it to the bolts on top of the support. Then, set a standard propane cylinder (not included) on the bottom of the base.



- Attach the regulator to the cylinder valve on the propane cylinder by turning the regulator coupling nut. Make sure it is fastened securely and tighten connections by hand only.



NOTE:

- The regulator and hose must conform to local standard.
- 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.
- Never connect an unregulated propane cylinder to the heater.

LEAK CHECK



WARNING!

- Perform all leak tests outdoors.
- Extinguish all open flames.
- **NEVER** perform a leak test while smoking.
- Do not use this heater until all connections have been leak tested and do not leak.

Leakiest

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

If bubbles appear at any connection, there is a leak!

-Turn cylinder valve OFF.

-If leak is at Hose/Regulator connection, tighten connection and perform another leak test.

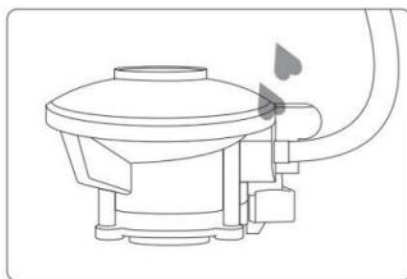
-If leak is at Regulator/Cylinder Valve connection, disconnect, reconnect, and then perform another leak check. If you continue to see bubbles after several attempts, the cylinder valve is defective and should be returned to cylinder's place of purchase.

If NO bubbles appear at any connections, the connections are secure.

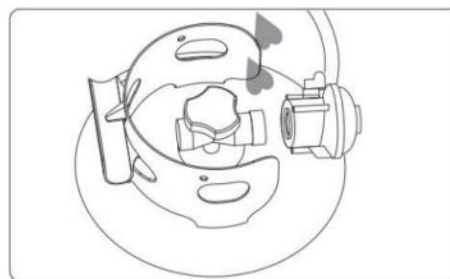
-Turn cylinder valve OFF.

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

-Complete check.



Hose/Regulator Connection



Regulator/Cylinder Valve Connection

OPERATING INSTRUCTIONS



CAUTION: Do not attempt to operate until you have and understood all general safety information in this manual. All assembly is complete and leak checks have been performed.

Before Turning the Gas Supply ON

- This heater is designed and approved for outdoor use only. DO NOT use it inside a building, garage, or any other enclosed area.
- Make sure the surrounding area is free of combustible materials, gasoline, and other flammable vapors or liquids.
- Ensure that there is no obstruction of air ventilation
- Be sure all gas connections are tight and there are no leaks.
- Be sure the cylinder cover is clear of debris.
- Be sure any component removed during assembly or servicing is replaced and fastened prior to starting.

Before Lighting

- Heater should be thoroughly inspected by a qualified service technician at least once annually.
- If re-lighting a hot heater; always wait at least 5 minutes
- Inspect the hose assembly for evidence of excessive abrasion, cuts, or wear. Suspected areas should be leak tested

Perform These Checks Before Each Use:

- Read the instruction manual to understand correct operation and precautions.
- All components are properly assembled, intact and operable.
- No alterations have been made.
- All gas connections are secure and do not leak.
- Wind velocity is below 10 mph
- Heater efficiency will be reduced if the surrounding temperature drops below 4.4 °C.
- Heater is for use outdoors (outside any enclosure).
- There is adequate fresh air ventilation.
- Heater is away from gasoline or other flammable liquids or vapors.
- Heater is away from windows, air intake openings, sprinklers, and other water sources.
- Heater is situated such that there is at least 120 cm from both the top and the sides of the heater and combustible materials.
- Heater is on a hard, level surface.
- There are no signs of spider webs or insect nests in the heater.
- All burner passages are clear.
- Children and adults should stay a safe distance away from the heater to avoid burns or clothing ignition

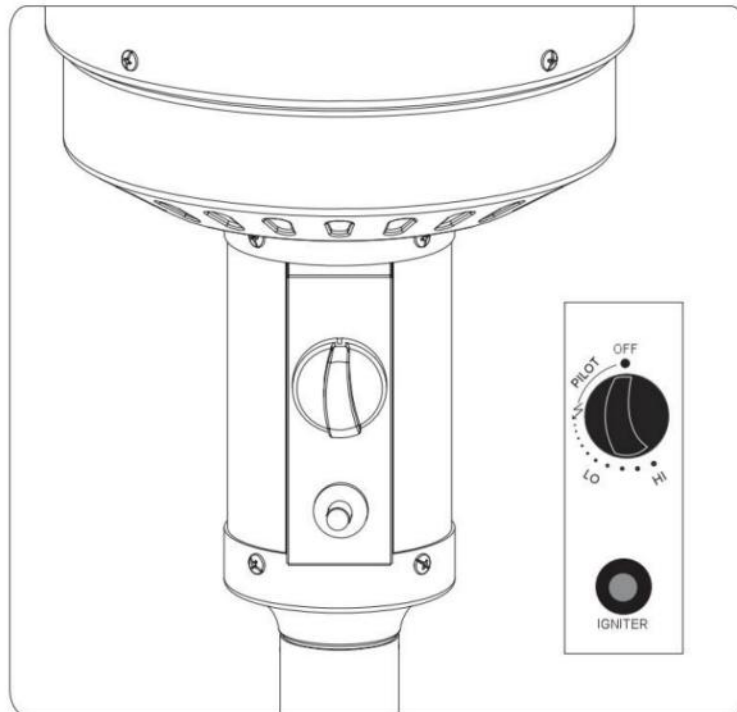
- If children are near the heater for any reason, they should be carefully supervised by an adult
- Clothing or other protective material should not be hung from the heater or placed on or near the heater
- Any guard or other protective device removed for servicing the heater must be replaced prior to operating the heater

To Turn the Heater ON

1. Open the valve on the gas supply cylinder.
2. Press down and turn the variable control knob on the burner to the "pilot" position.
3. Press down the control knob for about 30-45 seconds, Then, while pressing down on the knob.
 - 3a. Push the igniter button several times until the pilot flame ignites
 - 3b. Continue to hold down the control knob for 10-20 seconds longer to ensure ignition



CAUTION: When igniting the flame, make sure that the variable control knob is continuously pressed down while pressing the igniter button.



4. Then, release the control knob. If you want a lower temperature, turn the control knob counterclockwise to the "LO" (minimum) position
 NOTE: If the burner flame goes out accidentally or it is blown out by wind, turn off the heater and wait at least 5 minutes or longer to let the gas dissipate before lighting again. This is to avoid possible gas explosion



CAUTION: Avoid inhaling the fumes emitted from the heater's first use. Smoke and odor from the burning of oils used in the manufacturing may be present. This smoke and odor should dissipate after approximately 30 minutes. The heater should NOT produce a thick black smoke.

To Turn the Heater Off

1. Turn the variable control knob on the burner to the "pilot" position.
2. Then, press down and turn the control knob to the "OFF" position.
3. Turn off the valve on the gas cylinder.
4. Disconnect the cylinder.



WARNING: FOR YOUR SAFETY! Do not touch or move heater for at least 45 minutes after use. Reflector and head assembly are hot to the touch. Allow the heater to cool before touching and/or storing.



WARNING!

- The whole gas system, hose, regulator, or burner should be inspected for leaks before use.
- Check the hose assembly for signs of abrasion, cuts, or wear. Suspected areas should be leak tested. If the hose leaks, inspect the visible portion of the hose before each use of appliance and inspect the entire hose assembly at least once annually.
- Avoid twisting the flexible tubes and hoses.
- Make sure the ventilation opening of the cylinder enclosure, control compartment, burner and circulation air passageways of the heater are free and clear of debris. If debris, spider webs, or insect nests are found, clean the holes with a heavy-duty pipe cleaner or compressed air.
- Always keep a dry chemical fire extinguisher readily available.
- For safety always allow a 5-minute complete shut-off period before re-lighting a hot heater to avoid possible gas explosion.
- Maximum working pressure: 250 psig.

Replacing the Gas Cylinder

1. Close the valve to the gas cylinder.
2. Disconnect the regulator from the cylinder following the instructions that came with your regulator.
3. Replace the cylinder.
4. In the absence of any flame, remove the plug or seal cap from the cylinder valve.
5. Check the gasket to ensure it is both present and in good condition before connecting the regulator.
6. Perform a leak test using a soapy water solution.



CAUTION: When starting your heater for the first time or after you change a new cylinder, allow at least two minutes before adjusting the control knob to ensure all air is removed from the gas hose.



WARNING!

- **Changing** of cylinder should be done in a flame-free environment
- Make sure that all ports on the consuming appliance are in the closed position.

Safety of LP-Gas Supply Cylinder

The LP-gas supply cylinder to be used must be:

- Provided with a listed overfilling prevention device;
- Provided with a cylinder connection device compatible with connection of the appliance.



WARNING!

- The cylinder supply system must be arranged for vapor withdrawal.
- The cylinder must include a collar to protect the cylinder valve.
- Always check for leakage on the connections of the regulator. NEVER use a flame to check for leakage; only use a soap mix.
- Place the dust cap on the cylinder valve outlet when 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.
- If the information above is not followed exactly a fire causing serious injury or death may occur.

STORAGE

- Always close the valve of the gas cylinder after use or in case of a disturbance.
- Cylinder must be stored outdoors in a well-ventilated area out of reach of children.
- Disconnected cylinders must have threaded valve plugs tightly installed and must not be stored in a garage or any other enclosed area.
- Storing of this heater indoors is permissible only if the cylinder is disconnected and removed from the heater.
- Check the gas valve to ensure proper tightness and for any damages that may have been incurred. If you suspect you have a damaged gas valve, have it changed by your gas dealer.
- Never store liquid gas cylinders in a sub-terrain or places without adequate air ventilation.

CLEANING AND MAINTENANCE

NOTE: Never use flammable or corrosive cleaning agents.

- Wipe off powder coated surfaces with a soft, moist rag and soap water. DO NOT clean the heater with cleaners that are combustible or corrosive.
- Remove debris, spider webs, and insect nests from the ventilation opening of the cylinder enclosure, control compartment, burner and circulation air passageways of the heater with heavy-duty pipe cleaner or compressed air to keep appliance clean and safe for use. Never clear ports or other openings with toothpicks or other articles that can break and block the ports.
- If carbon deposits develop, disassemble the reflector. Clean them with soap water. Do not paint the flame screen, control panel, or reflector.
- 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.

Maintenance Instructions

- Keep the appliance area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.
- Do not obstruct the flow of combustion and ventilation air.
- Keep the ventilation opening(s) of the cylinder enclosure free and clear from debris.
- Visually check burner flames.
- Visually check portions of the hose assembly located within the confines of the heater post.



WARNING!

- Do not perform maintenance after the heater has been turned off until the temperature has cooled down.
- Do not expose the pilot, controllers, or parts underneath the burner to water. Do not use the heater if any of these parts are exposed to water until the appliance is inspected or repaired by a qualified service person.



WARNING!

This appliance should be used only in a well-ventilated space and should not be used in a building, garage, or any other enclosed area. This appliance may be installed in a sheltered area no more enclosed than:

- With walls on all sides, but with no overhead cover.

- Within a partial enclosure which includes an overhead cover and no more than two side walls. These side walls may be parallel, as in a breezeway; or at right angles to each other.
- Within a partial enclosure which includes an overhead cover and three side walls, as long as 30 percent or more of the horizontal perimeter of the enclosure is permanently open.

ADDED SAFETY INFORMATION

- Equip your home with at least one smoke detector on each floor.
- Keep at least one dry-powder operative ABC-type fire extinguisher in the home at all times.
- Keep areas around heat sources free of papers and trash.
- Store paints, solvents, and flammable liquids away from all heat and ignition sources.
- Develop a fire escape plan before a fire occurs. Be sure every person understands the plan and is able to carry out the plan in case of emergency.
- If your clothing catches fire, do NOT run. Drop down immediately and roll to smother the flames.

FIRSTAID FOR A BURN

Eyes

Seek medical attention IMMEDIATELY. Do not put ointments or liquids in your eye.

Elsewhere

- Consult a doctor if the burn has not healed in 24 hours, or if the burn is larger than the size of your palm.
- If serious, promptly send for an ambulance or a doctor.
- If possible, run affected area under cold water; not ice or ice water; for 10-15 minutes if the skin is intact. Cut and gently lift away any clothing covering the burned area without pulling clothing over the burns. Leave in place any clothing that is stuck to the burns. Do not put any creams or greases on the burned area.
- If hands or wrists have been burned, remove jewelry (if possible) without causing further and place in his/her pockets. This prevents the necessity to cut off jewelry since swelling usually occurs as a result of a burn.
- Do not pop any blisters. Cover the burn with a light gauze dressing.
- If blisters pop, apply a light antibiotic ointment and dress as above.

TROUBLESHOOTING

Problems	Possible Causes	Solutions
The burner will not light.	Low gas pressure.	Call your gas supplier.
Burner flame goes off immediately after ignition.	Low gas pressure.	Call your gas supplier.
Inadequate combustion on burner.	Not enough air.	Check air passageways of the burners for dirt and debris, and clean with compressed air.
Burner flame is low.	Gas supply hose is bent or twisted.	Straighten hose and perform leak test on hose.
	Obstructions in the system.	Check for obstructions at passageways.
Burner glows uneven.	Obstructions in the system.	Obstructions in the system.
	Base is not on a level surface.	Place the heater on a level surface.
	Low gas pressure.	Replace the gas cylinder with a new cylinder.
Slight smoke and odor during initial operation.	Residue from manufacturing processes.	This phenomenon will stop after approx. 30 minutes of operation.
Heater produces a whistling noise when the burner is lit.	Air passageways are blocked.	Check minimum installation clearances and air passageways for debris.
Heater produces a clicking noise just after it is lit or turned off.	Metal expanding and contracting respectively.	This is common with heaters. If noise is excessive, contact a qualified
Gas odor even when the control knob is on the "OFF" position.	Gas leaks.	Locate and correct leaks immediately.
Gas odor during combustion.	Debris in gas or on burner ports.	Check gas passageways and burner.
	Heater burning vapors from paint, or impurities in air.	Stop storing and using odor-causing products near the heater.
	Gas leakage from: -Regulator and hose connection. -Valve and pipe connection. -Pipes.	Locate and correct leaks or contact your gas supplier.
Carbon buildup.	Dirt or film on the reflector.	Clean the reflector.

