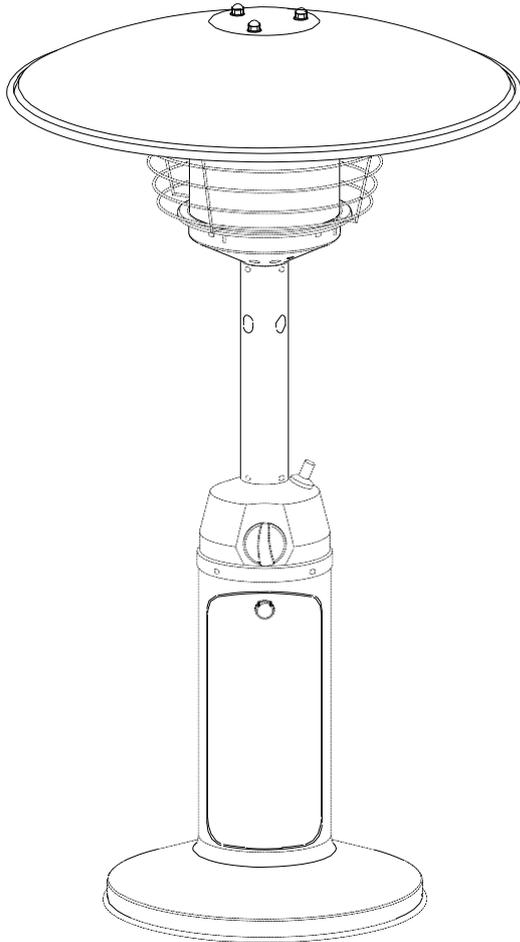




Owner's Manual

TABLETOP PATIO HEATER

MODEL # PHRDGH/SS-TT



DANGER

FOR YOUR SAFETY

If you smell gas:

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

WARNING

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 shall not be stored in the vicinity of this or any other appliance.

WARNING: For Outdoor Use Only

DANGER

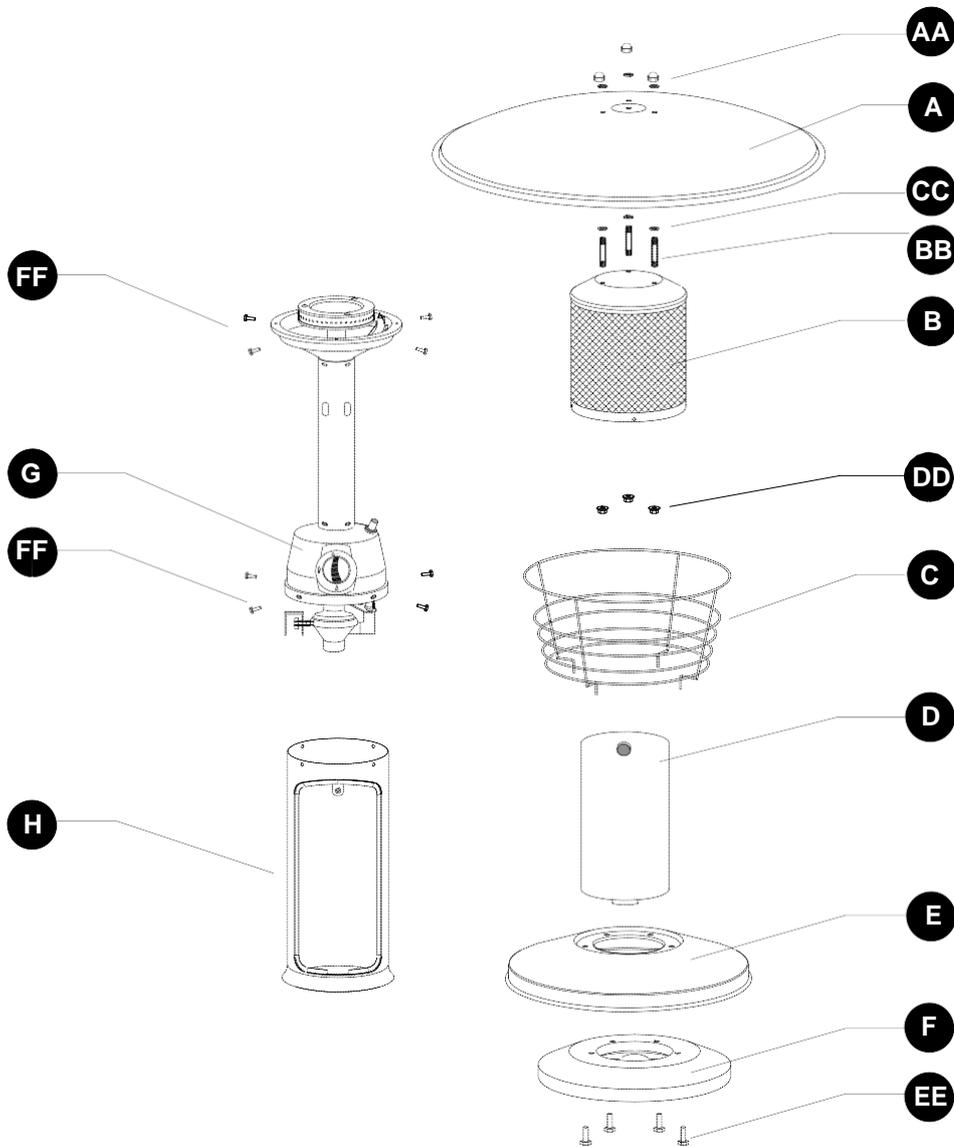


CARBON MONOXIDE HAZARD
This appliance can produce carbon monoxide which has no odor. Using it in an enclosed space can kill you. Never use this appliance in an enclosed space such as a camper, tent or home.



ANS Z83.26-2007/CSA 2.37-2007 Gas-Fired Outdoor Infrared Patio Heaters
ANS Z83.26a-2008/CSA 2.37a-2008 Gas-Fired Outdoor Infrared Patio Heaters

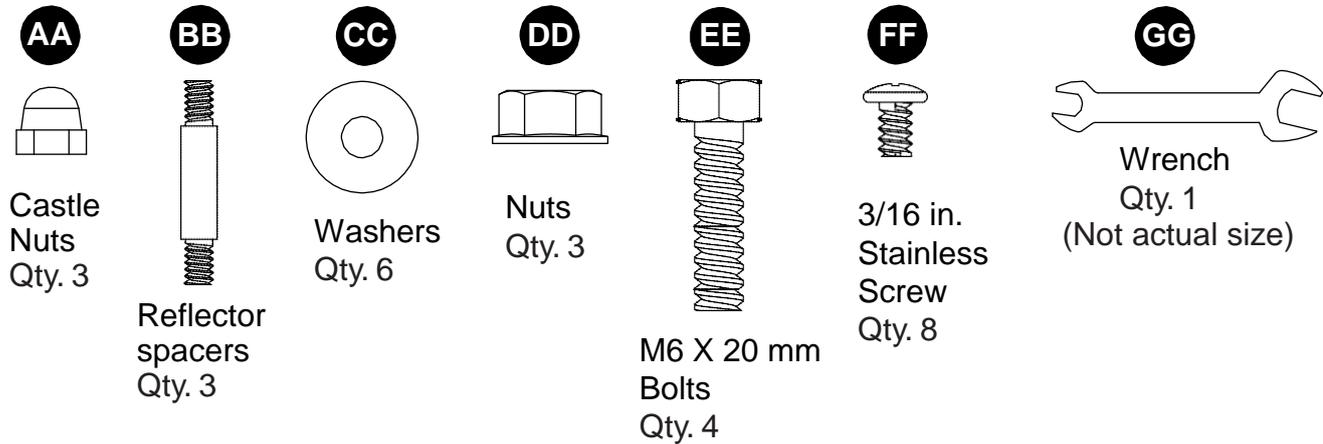
PACKAGE CONTENTS



PART	DESCRIPTION	QUANTITY
A	Reflector	1
B	Emitter	1
C	Wire Guard	1
D	Access Panel	1
E	Base	1
F	Ring Weight	1
G	Post with Burner Assembly	1
H	Heater Housing	1
AA	Castle Nut	3
BB	Reflector Spacer	3

PART	DESCRIPTION	QUANTITY
CC	Washer	6
DD	Nut	3
EE	M6 X 20mm Bolt	4
FF	3/16 in. Stainless Screw	8

HARDWARE CONTENTS (shown actual size)



SAFETY INFORMATION

Please read and understand this entire manual before attempting to assemble, operate or install the product.

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 to educate new users 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. Using this equipment with the respect and caution demanded will reduce the possibilities of personal injury or property damage. The following symbols shown below are used extensively throughout this manual. Always heed these precautions, as they are essential when using any mechanical or fueled equipment.

DANGER

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

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, explosion, burn, asphyxiation, and/or carbon monoxide poisoning. Only persons who can understand and follow the instructions should use or service this heater.

DANGER

FOR YOUR SAFETY

If you smell gas:

1. Shut off gas to the appliance.
2. Extinguish any open flame.
3. If odor continues keep away from the appliance and immediately call you gas supplier or fire department.

SAFETY INFORMATION

DANGER

- 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 do 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 heater area clear and free from combustible materials, gasoline, paint thinner, cleaning solvents and other flammable vapors and liquids. Do not use heater in areas with high dust content. Minimum heater clearances from combustible materials: three (3) feet from the sides & two (2) feet from the top.

DANGER

- EXPLOSION - FIRE HAZARD
- Never store propane near high heat, open flames, pilot lights, direct sunlight, other ignition sources or where temperatures exceed 120 degrees F (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 propane cylinder while heater is lighted, near flame, pilot lights, other ignition sources or while heater is hot to touch.
- This heater is red hot during use and can ignite flammables too close to the burner. Keep flammables at least 3 feet from sides & 2 feet from top. Keep gasoline and other flammable liquids and vapors well away from heater.
- Store the propane cylinder outdoors in a well ventilated space out of reach of children. Never store the propane cylinder in an enclosed area (house, garage, etc.). If heater is to be stored indoors, disconnect the propane cylinder for outdoor storage.

WARNING

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. If no local codes exist, follow National Fuel Gas Code, ANSI Z223.1. In Canada, installation must conform to local codes. If no local codes exist, follow the current National standards of CANADA CAN/CGA-B 149.2.

DANGER

- 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 get fresh air immediately!
- For outdoor use only.
- Never use inside house, or other unventilated or enclosed areas.
- This heater consumes air (oxygen). Do not use in unventilated or enclosed areas to avoid endangering your life.

WARNING

WARNING indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

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 shall not be stored in the vicinity of this or any other appliance.

WARNING: For Outdoor Use Only

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 a camper, tent or home.

WARNING

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.

SAFETY INFORMATION

WARNING

California Proposition 65
Combustion by-products produced when using this product contain chemicals known to the State of California to cause cancer, birth defects, and other reproductive harm.

WARNING

BURN HAZARD

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

WARNING

Certain materials or items, when stored under the heater, will be subjected to radiant heat and could be seriously damaged.

CAUTION

SERVICE SAFETY

- Keep all connections and fittings clean. Make sure propane cylinder valve outlet is clean.
- During set up, check all connections and fittings for leaks using soapy water. Never use a flame.
- Use as a heating appliance only. Never alter in any way or use with any device.

CAUTION

CAUTION indicates an imminently hazardous situation which, if not avoided, may result in minor or moderate personal injury, or property damage.

WARNING

- 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.
- Propane gas is heavier than air and leaking propane will sink to the lowest level possible. It can ignite by ignition sources including matches, lighters, sparks or open flames of any kind many feet away from the original leak. Use only propane gas set up for vapor withdrawal.
- Store or use propane gas in compliance with local ordinances and codes or with ANSI/NFPA 58. Turn off propane when not in use.

WARNING

- Alert children and adults to the hazards of high surface temperatures. Stay away from these surfaces to avoid burning skin or igniting clothing.
- Carefully supervise young children when in the vicinity of the heater.
- Do not hang clothing or any other flammable materials from the heater, or place on or near the heater.
- Replace any guard or protective device removed for servicing the appliance prior to placing back in service.
- 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. More frequent cleaning may be required as necessary. It is imperative that the control compartment, burners, and circulating air passageway of the appliance be kept clean.

PREPARATION

Before beginning assembly of product, make sure all parts are present. Compare parts with package contents list and hardware contents above. If any part is missing or damaged, do not attempt to assemble the product. Contact customer service for replacement parts.

Estimated Assembly Time: 30 minutes

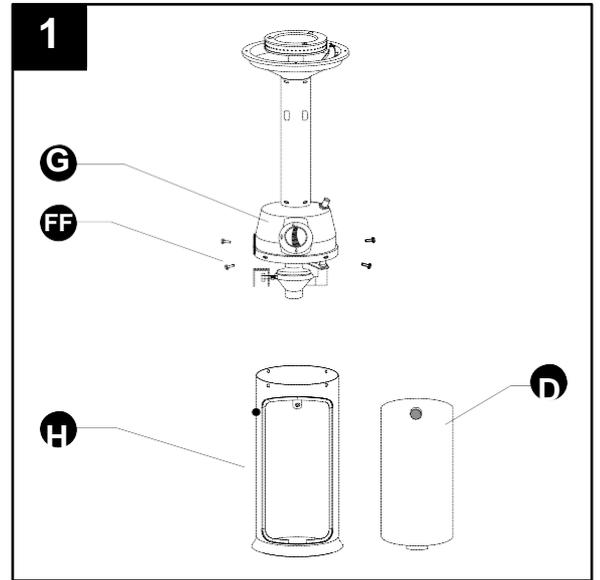
Tools Required for Assembly (not included):
Phillips screwdriver with medium blade. Leak Detection Solution.

ASSEMBLY INSTRUCTIONS

1. Attach post with burner assembly (G) onto heater housing (H), using four 3/16 in. Stainless bolts (FF) . Keep the access panel (D) open.

Hardware Used

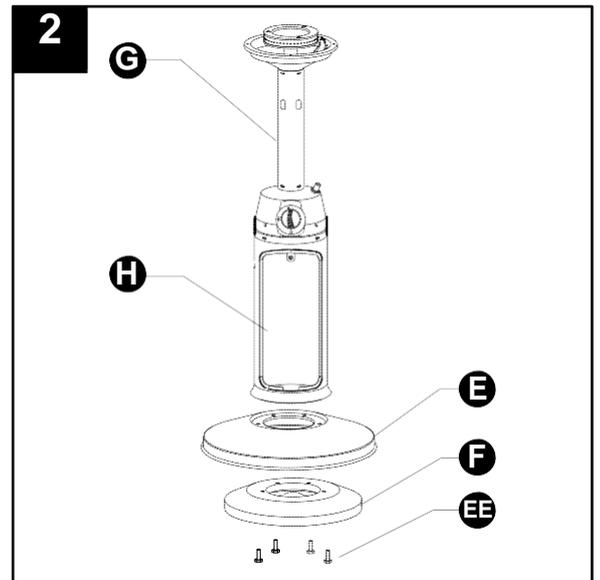
FF 3/16 in. Stainless Screw  x 4



2. Attach ring weight (F) to base (E) , using four M6 X 20 bolts.

Hardware Used

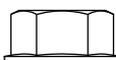
EE M6 X 20 Bolts  x 4



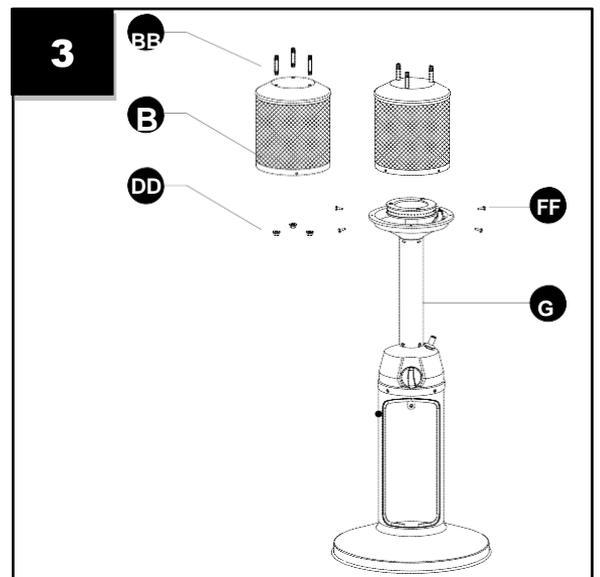
3. Put three reflector spacers (BB) into the holes in the emitter (B). Use three nuts (DD) to hold the reflector spacers inside of the emitter (B). Attach emitter (B) to (G) using four bolts (FF).

Hardware Used

BB Reflector spacers  x 3

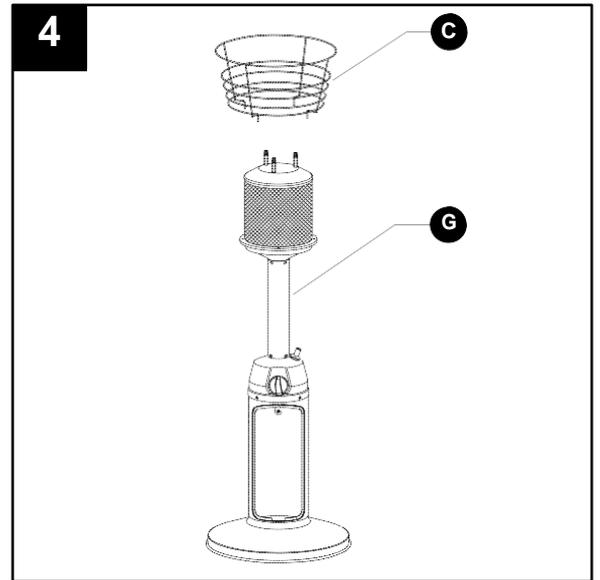
DD Nuts  x 3

FF 3/16 in. Stainless Screw  x 4

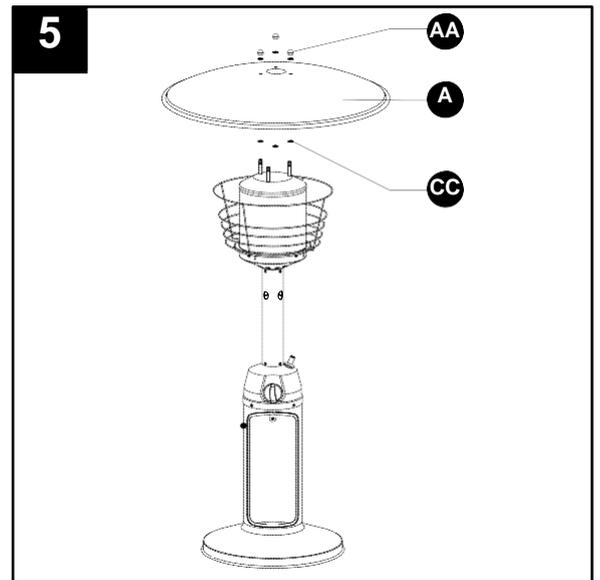


ASSEMBLY INSTRUCTIONS

4. Insert ends of wire guard (C) into holes in (G).



5. Put 3 washers (CC) into the top of support bolts. Attach reflector to emitter assembly, using 3 nuts (AA) and 3 washers (CC).

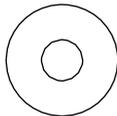


Hardware Used

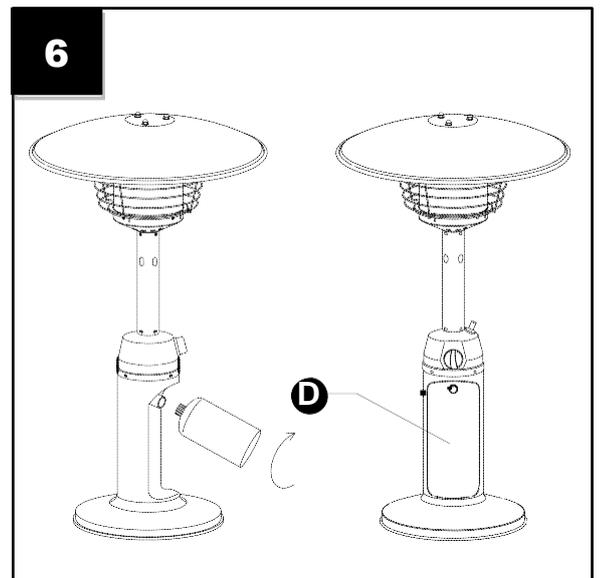
AA Castle Nuts x 3



CC Washers x 6



6. Rotate regulator toward opening in housing. Line up threads on gas cylinder with those on the regulator. Insert and rotate cylinder clockwise until tight. Close (D).

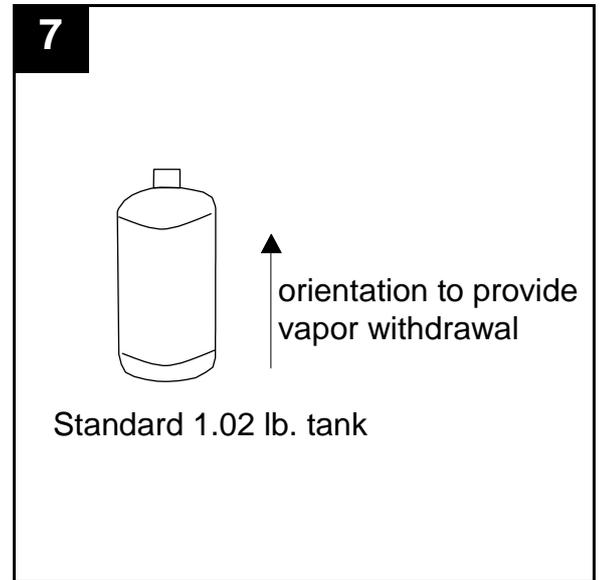


ASSEMBLY INSTRUCTIONS

7. Gas Tank Assembly

The propane gas and cylinder are sold separately. Use a standard 1.02 lb. propane cylinder only.

Store the appliance indoors only if the cylinder is disconnected and removed from the appliance. A cylinder must be stored outdoors in a well-ventilated area out of the reach of children. A disconnected cylinder must have dust caps tightly installed and must not be stored in a building, garage or any other enclosed area.



Use the pressure regulator supplied with the appliance.

The installation must conform with local codes, or in the absence of local codes, to National Fuel Gas Code, ANSI Z223.1/NFPA54, Natural Gas and Propane Installation Code, CSA B149.1, or Propane Storage and Handling Code, B149.2.

Certain materials or items, when stored under the heater, will be subjected to radiant heat and could be seriously damaged.

Use only a cylinder marked propane.

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.

The propane cylinder must be constructed and marked in accordance with the specifications for LP gas cylinders of the U.S. Department of Transportation (DOT) or the Standard for Cylinders, Spheres and Tubes for Transportation of Dangerous Goods and Commission, CAN/CSA-B339.

Includes a listed overfilling prevention device.

Includes a cylinder connection device compatible with the connection for the appliance.

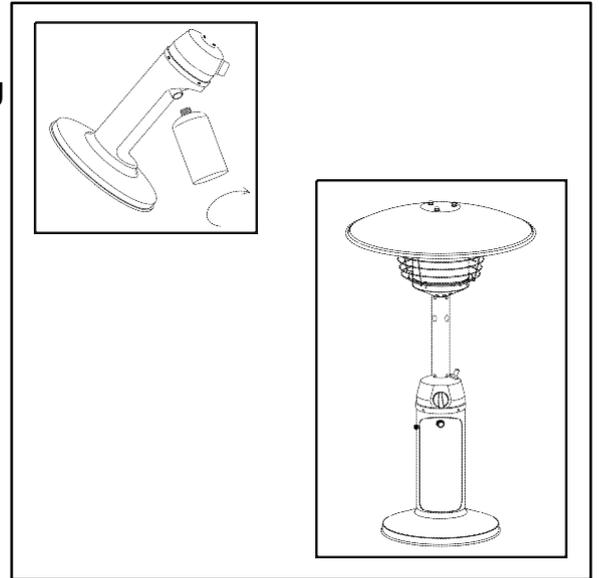
The cylinder used must include a collar to protect the cylinder valve.

Never connect an unregulated propane cylinder to the heater.

ASSEMBLY INSTRUCTIONS

Move the burner control knob to the off position. Fix the 1.02 lb. propane cylinder to the regulator (rotate the propane cylinder clockwise toward the regulator connecting until tight).

Close the door plate and lock it with the handle.



Disconnect the cylinder when the appliance is not used.

Store the appliance indoors only if the cylinder is disconnected and removed from the appliance.

You may place the appliance in a shelter:

- (a) With walls on all sides, but with no overhead cover.
- (b) 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.
- (c) Within a partial enclosure which includes an overhead cover and three side walls, as long as 30 percent or more of the horizontal periphery of the enclosure is permanently open.

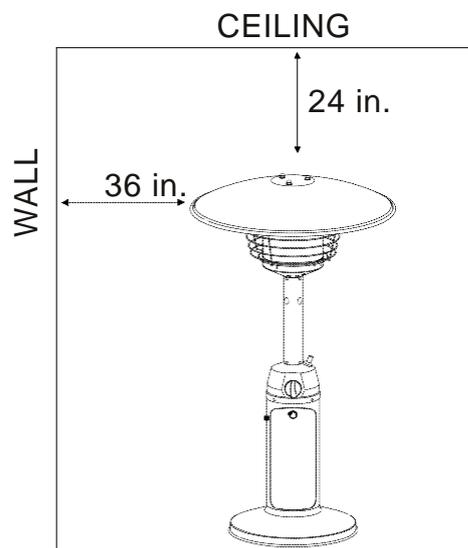
- Do not store a spare LP-gas cylinder under or near this appliance;
- Never fill the cylinder beyond 80 percent full;

Use a replacement pressure regulator specified by the appliance manufacturer. Use the pressure regulator and hose assembly supplied with the appliance.

OPERATION INSTRUCTIONS

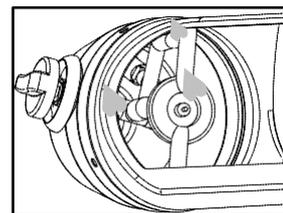
Portable Heater Location

1. This portable heater is intended for outdoor use only. Always ensure adequate fresh air ventilation.
2. Always maintain proper clearance to combustible materials: a minimum of 24 in. from the top and 36 in. from the sides
3. Place the heater on a strong and stable table.
4. Never operate the heater in an explosive atmosphere like in areas where gasoline or other flammable liquids or vapors are stored.



Testing for Leakage

Gas connections on this heater are leak tested at the factory prior to shipment. Possible mishandling of this appliance during shipping may impair product integrity. Perform a complete leakage test again at the installation site. Please follow the procedure below.



1. Make a soap solution of one part liquid detergent and one part water. The soap solution can be applied to hoses and connections with a spray bottle, brush or rag.
2. Make sure that the safety control valve is in the "OFF" position.
3. Turn the cylinder valve ON and check for soap bubbles forming on and around connections and hoses. If bubbles appear, there is a leak present.
4. If a leak is present, remove the gas cylinder immediately, tighten any leaking fittings, replace the gas cylinder, and recheck.

Procedure for Leakage Test

1. Periodically check the whole gas system for leaks.
2. Immediately check for leaks if an odor of gas is detected.
3. Extinguish all open flames during testing or when an odor of gas is detected.
4. Never smoke while performing the leak test.
5. If you cannot stop a leak, unscrew and remove the cylinder from the heater.
6. Check the heater with a full propane cylinder. DO NOT use the heater until you have performed a leak test on all the connections and verified that your unit does not leak.
7. Use only manufacturer recommended replacement parts. Substitution may void the warranty.

OPERATION INSTRUCTIONS

Turning ON the Heater

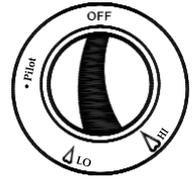
1. Turn on the valve on the gas supply cylinder completely.
2. Firmly press down and turn the variable control knob approximately 45° (counterclockwise).
3. Press down the variable control knob and hold for 20 seconds. While holding down the variable control knob, press the igniter button several times until the pilot flame comes on. After lighting the pilot, wait 15 seconds to heat the thermal coupler, before releasing the control knob. Release the variable control knob after the pilot flame lights.



4. If the pilot does not light, repeat steps 2 to 3.

Note: If a new tank has just been connected, please allow at least one minute for the air in the gas pipeline to purge out through the pilot hole.

5. After the flame comes on, leave the variable control knob on LO for about 5 minutes, and then switch to the desired temperature.



Variable control knob

Turning the Heater and Pilot Light OFF

1. Turn control knob to "PILOT".
2. Press down lightly and turn to "OFF".
3. Turn the gas tank off completely.
4. Wait 5 minutes before relighting.

CARE AND MAINTENANCE

! WARNING

FOR YOUR SAFETY:

- Do NOT touch or move heater for at least 45 minutes after use.
- Reflector is hot to the touch.
- Allow reflector to cool before touching.

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

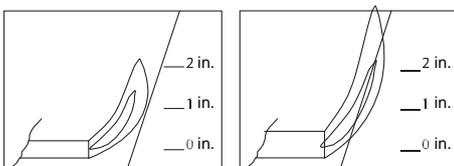
Keep exterior surfaces clean.

Use warm soapy water for cleaning. Never use flammable or corrosive cleaning agents.

While 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.

- a. Keep the appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- b. Do not obstruct the flow of combustion and ventilation air.
- c. Keep the ventilation opening(s) of the cylinder enclosure free and clear from debris.

Keep air flow unobstructed. Keep controls, burner, and circulating air passageways clean. Signs of possible blockage include:



Normal

Abnormal

CARE AND MAINTENANCE

- Gas odor with extreme yellow tipping of the 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 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. Clean dome and burner screen with warm soapy water if any carbon deposits develop.



Note: 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.

TIP:

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 domes.

Storage

Between uses:

- Turn Control Knob OFF.
 - Disconnect LP source.
 - 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 help 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 LP source and move to a secure, well-ventilated location outdoors.
 - 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 help prevent build up in air passages. Never leave LP cylinder exposed to direct sunlight or excessive heat.
- Note: Wait until heater is cool before covering.*

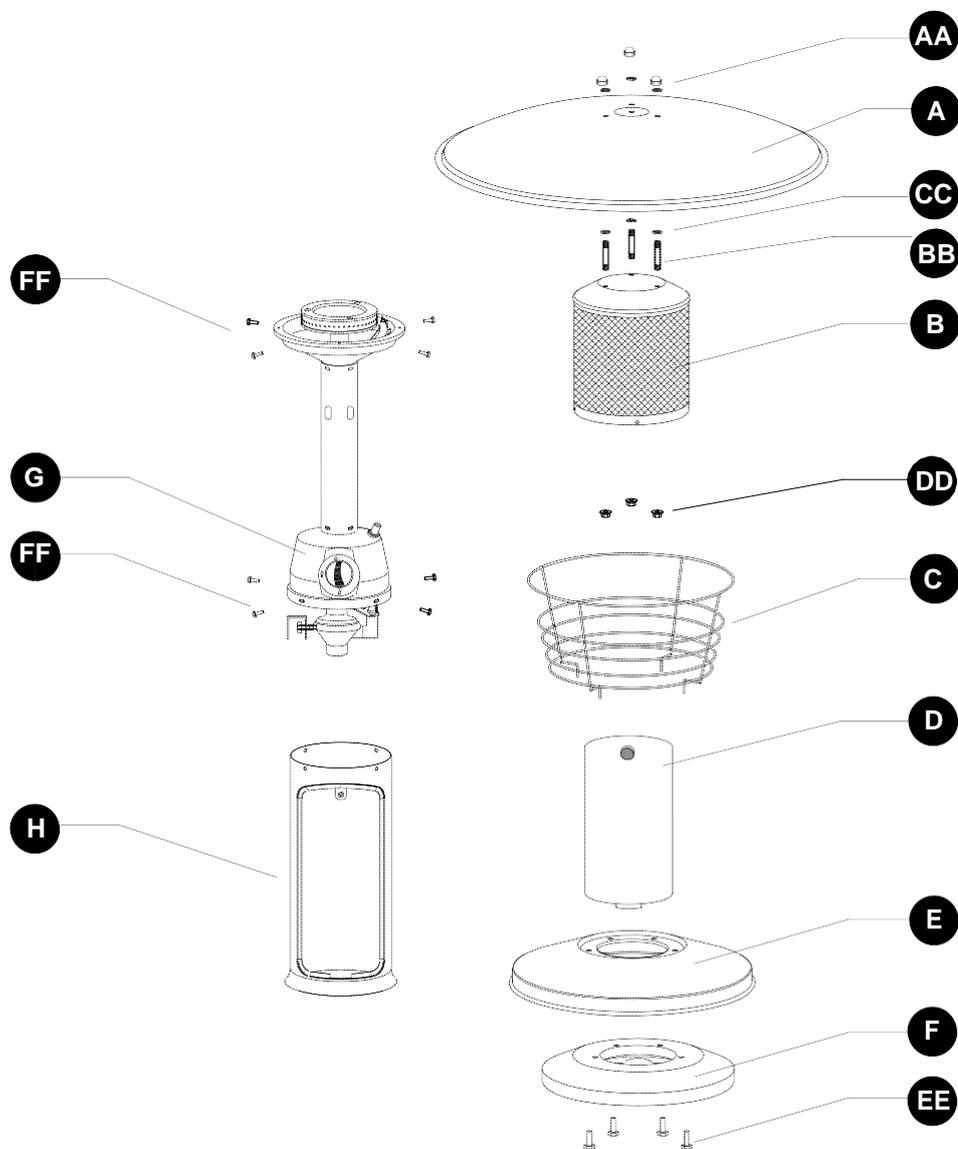
Service

Only a qualified service person should repair gas passages and associated components.
Caution: Always allow heater to cool before attempting service.

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Pilot won't light Note: Heater operates at reduced efficiency below 40°F (5°C)	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 bleed it (pressing control knob in) 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; obtain new igniter and replace
Pilot won't stay lit	Dirt built up around pilot	Clean dirt from around pilot
	Connection between gas valve and pilot assembly is loose	Tighten connection and perform leak check
	Thermocouple is not operating correctly	Replace thermocouple
Burner won't light	Gas pressure is low	Turn cylinder valve OFF and replace cylinder
	Blockage in orifice	Clear blockage
	Control knob is not in ON position	Turn control knob to ON
Burner flame is low	Propane cylinder is frosted over	Wait until the propane cylinder warms up and becomes unfrosted
	Outdoor temperature is less than 40°F and tank is less than 1/4 full	Use a full cylinder
	Control knob fully ON	Check burner and orifices for blockage
Carbon build-up	Dirt or film on reflector and burner screen	Clean reflector and burner screen
Thick black smoke	Blockage in burner	Remove blockage and clean burner inside and outside

REPLACEMENT PARTS LIST



PART	DESCRIPTION	QUANTITY
A	Reflector	1
B	Emitter	1
C	Wire Guard	1
D	Access Panel	1
E	Base	1
F	Ring Weight	1
G	Post with Burner Assembly	1
H	Heater Housing	1
AA	Castle Nut	3
BB	Reflector Spacer	3

PART	DESCRIPTION	QUANTITY
CC	Washer	6
DD	Nut	3
EE	M6 X 20mm Bolt	4
FF	3/16 in. Stainless Screw	8

ONE-YEAR LIMITED WARRANTY

This product is inspected, tested and carefully packaged to minimize the chance of damage during shipment. If a part (excluding light bulbs and fuses*) within one year from the date of purchase proves to be defective in material or fabrication under normal use, the part will be repaired or replaced. SUNHEAT International's obligation under the warranty is to replace or repair defective parts at our discretion. Any expenses or damage resulting from the installation, removal or transportation of the product will be the responsibility of the owner and are not covered by this warranty. The owner assumes all other risks arising out from the use or misuse of the product. The warranty will be void if the product damage or failure is deemed by SUNHEAT International to be caused by accident, alteration, misuse, abuse, incorrect installation or removal, or connection to an incorrect power source by the owner. SUNHEAT International neither assumes, nor authorizes any person or entity to assume for it any obligation or liability associated with its products. Customer will be responsible for any expense for delivery to and from the authorized SUNHEAT International servicing dealer. A copy of the original receipt must accompany all warranty claims.

WARRANTY CARD
SUNHEAT INTERNATIONAL
3724 ARCH AVE
GRAND ISLAND, NE 68803
877-467-8643

**TO REGISTER YOUR WARRANTY ONLINE OR
FOR DEALER INQUIRIES**

GO TO

www.sunheat.com

OR

CUT OUT FORM BELOW AND MAIL IT TO ADDRESS ABOVE.

SUNHEAT Warranty Registration

Please return this card within 30 days of the purchase to
activate your warranty.

THANK YOU

NAME: _____ PHONE: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

EMAIL ADDRESS: _____

DEALER PURCHASED FROM: _____

DEALER'S ADDRESS: _____

MODEL #: _____ SERIAL #: _____

DATE PURCHASED _____

I am interested in becoming a SUNHEAT dealer. Please send me
information _____