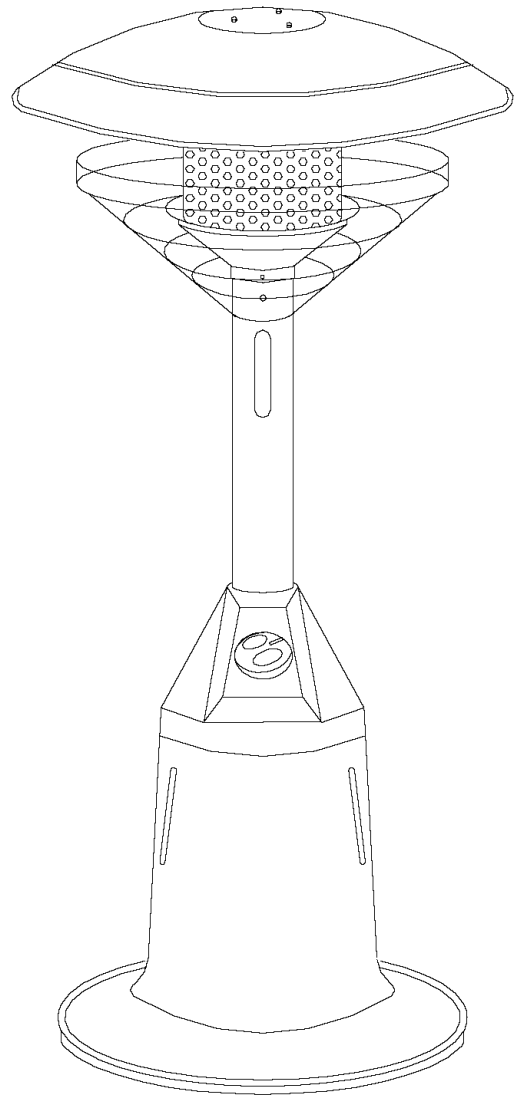


Owner's Manual



Liquid Propane, Gas-Fired Infrared Outdoor Patio Heater

Model 22899



WARNING:

Read this Owner's Manual carefully and be sure your patio heater is properly assembled, installed and maintained. Failure to follow these instructions could result in serious bodily injury and/or property damage. This patio heater is intended for outdoor use only and is not intended to be installed in or on recreational vehicles, campers or boats.

WARNING:

THIS PATIO HEATER IS FOR OUTDOOR USE ONLY.

Note to Installer:

Leave this Owner's Manual with the consumer after delivery and/or installation.

Note to Consumer:

Leave this Owner's Manual in a convenient place for future reference.

Customer Service Helpline:

If there are damaged or missing parts when you unpack this unit from the shipping box, or you have questions about assembly, call us 8am - 8pm CST, Monday through Friday at: **1-888-317-7642**.

P47B5A - Date: 10/16/2004

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Full 1-Year Warranty

For one year from the date of purchase Grand Hall Enterprise Co., Ltd. ("Grand Hall") will repair or replace, at our option, any patio heater part that is defective in material or workmanship.

This warranty does not cover:

- Reshaping or dents in soft, aluminum Reflector that may be caused by, but not limited to, falling debris.
- Patio heater if it is used for commercial or rental purposes.

This warranty applies only when the patio heater is used in the United States.

This warranty is void if the patio heater head assembly has been altered or disassembled.

This patio heater is manufactured to Liquid Propane specifications and is CSA Design Certified as such. Any attempt to convert this Liquid Propane patio heater for natural gas use is dangerous and will void your product warranty.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

WARNING

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

Read These Safety Instructions

WARNING

Failure to comply with these instructions could result in a fire or explosion that could cause serious bodily injury, death, or property damage.

FOR YOUR SAFETY:

1. Children and adults should be alert to high surface temperature of areas above the post when operating this patio heater.
2. Children should be carefully supervised when they are in the area of the patio heater.
3. **NEVER** hang anything including clothes or other flammable items on the patio heater.
4. **DO NOT** operate this patio heater unless it is fully assembled with reflector in place.
5. **DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**
6. **This Patio Heater is for outdoor use only.**

WARNING

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

WARNING

A strong gas smell, or the hissing sound of gas indicates a serious problem with your patio heater or the LP gas cylinder. Failure to immediately follow the steps listed below could result in a fire or explosion which could cause serious bodily injury, death, or property damage.

- Shut off gas supply to the patio heater.
- Extinguish any open flame.
- Get away from the LP gas cylinder.
- Do not try to fix the problem yourself.
- If odor continues or you have a fire you cannot extinguish, call your fire department. Do not call near the LP gas cylinder because your telephone is an electrical device and could create a spark resulting in fire and/or explosion.

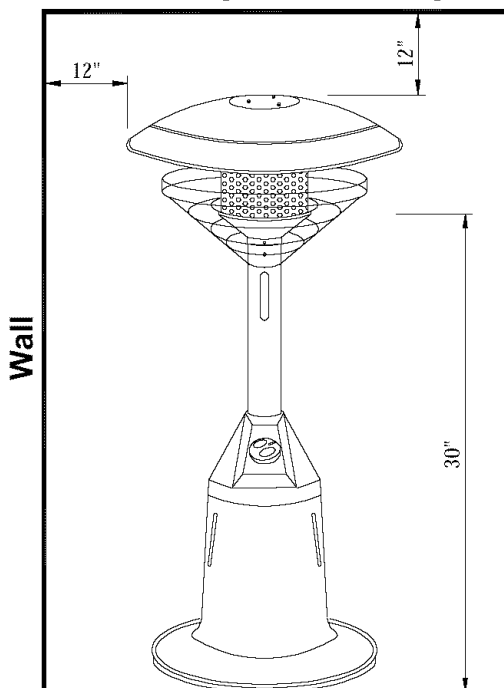
Prior to assembling your patio heater, the following must be reviewed. Compliance with the following should result in satisfactory heater operation. This Owner's Manual should be retained for future reference. The installation must conform with local codes of your area.

1. This gas fired infrared patio heater is intended for outdoor heating. The installation must conform with local codes or, in the absence of local codes with the National Fuel Gas code, ANSI Z223.1. In Canada, heater installation must conform with local building codes or, in the absence of local codes, with the current National Standards of Canada CAN/CGA-B 149.2.
2. The following must be maintained at all times when the patio heater is in operation:
 - Adequate clearance around air openings into the combustion chamber.
 - Clearances from combustible materials.
 - Provisions for accessibility.
 - Combustion and ventilating air supply.
3. Proper clearance from combustible materials must be maintained at all times. **See Fig. 1**

Minimum clearances are as follows:
Sides/Rear 12" Top 12"
Below Reflector Head 30"

Combustible materials include wood, compressed paper, plant fibers, plastic, Plexiglas or other materials capable of being ignited and burned. Such materials are considered combustible even if flameproof, fire-retardant treated or plastered.

Figure 1 Ceiling or Overhang



⚠ WARNING

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

4. Additional clearance may be required for glass, painted surfaces and other materials which may be damaged by radiant or convection heat.

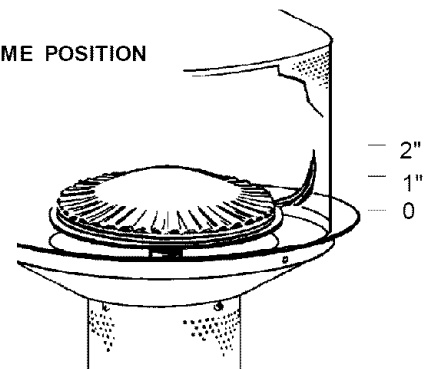
Patio heater must be placed on a level surface.

5. You must use only the gas regulator provided with this patio heater. This regulator is set for an outlet pressure of 11 inches water column. Any replacement regulator must be UL listed. The minimum inlet pressure to the regulator from the cylinder is 10 psi and maximum pressure is 150 psi.

The patio heater must be inspected before each use, and annually by a qualified service person.

6.
 - All gas connections should be checked for leaks utilizing a soapy water solution (50% mixture of both). Never use a flame for this purpose.
 - The flame pattern can be observed through the perforated emitter grid on the heater head assembly and should be visually checked whenever the patio heater is operated (see Fig. 2). If flames extend more than 2 inches in height or 1/2 inch outside the surface of the emitter grid or black soot is accumulating on the emitter grid or reflector, the heater should be turned off immediately. The heater should not be operated again until repairs are made.
 - The patio heater area must be kept clear and free of combustible materials, gasoline and other flammable vapors and liquids.

Figure 2. NORMAL FLAME POSITION



- The patio heater head and its components must be kept clear of dirt and cobwebs. Flow of combustion and ventilation air through the perforated portions of the heater must not be obstructed.
 - Keep the bottom ventilation opening of the cylinder enclosure (Patio Heater Base) free and clear from debris.
 - Clean patio heater only with noncombustible, noncorrosive cleaning agents.
 - The stainless steel emitter grid should be kept free of debris. Never spray cleaners into the emitter grid because of potential harm to internal components. NEVER paint the emitter grid or reflector.
7. Installation and use of this patio heater must conform with local codes or, in the absence of local codes, with the Standards of Storage and Handling of Liquefied Petroleum Gases, ANSI/NFPA 58.
 8. The self contained gas system for this mini table top patio heater is designed to be used with a 16.4 oz (disposable) LP gas cylinder (not included). The gas cylinder must be constructed and marked in accordance with specifications of the U.S. Department of Transportation for LP Gas Cylinders. **NEVER refill disposable cylinders.**
 9. A leak test should be performed with soapy water (50% mixture of both) whenever connecting a new cylinder. **Never** use a match to test for leaks.
 10. When the patio heater is stored indoors, the connection between the LP gas cylinder and the heater must be disconnected and stored in accordance with Chapter 5 of the Standard for Storage and Handling of Liquefied Gases, ANSI/NFPA 58.
 11. Clothing or other flammable materials should not be hung from the heater, or placed on or near the heater. The area above the post may be extremely hot. Direct contact with these metal surfaces should be avoided in order to prevent burns or clothing ignition.
 12. This patio heater is for outdoor use only. If stored indoors, you **MUST** remove and store the LP gas cylinder outdoors. The LP gas cylinder must be disconnected when patio heater is not in use.
 13. **CAUTION:** You must use only the gas regulator provided with this patio heater. This regulator is set for an outlet pressure of 11 inches water column.

 **WARNING**

- **DO NOT** shorten the post length
- **DO NOT** bypass the thermocouple safety
- **DO NOT** operate heater without a reflector
- **DO NOT** operate without Base Assembly
- **DO NOT** attempt to convert the patio heater for natural gas use.

Failure to comply with these instructions could result in a fire or explosion which could cause serious bodily injury, death, or property damage.

Customer Service Helpline: If you have questions about assembly or grill operation, or if there are damaged or missing parts when you unpack this unit from the shipping box, call us 8am - 8pm CST, Monday through Friday at: **1-888-317-7642**

Contents for Hardware Pack - Part # P55J7A

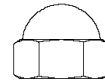
The following table illustrates a breakdown of the hardware pack. It highlights what components are used in the various stages of assembly.

Ref.	Component	Qty. to Use	Purpose of Components
PH009	1/4" Spring Washer	3	Install Reflector to Emitter Grid
PH018	1/4" Cap Nut	3	Install Reflector to Emitter Grid
PH019	M4 x 10 mm Round Head Screw	4	Install Emitter Grid to Burner Assembly

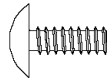
Quantity and Actual Size of Each Hardware Piece:



1/4" Spring Washer
Qty. 3
Part # PH009



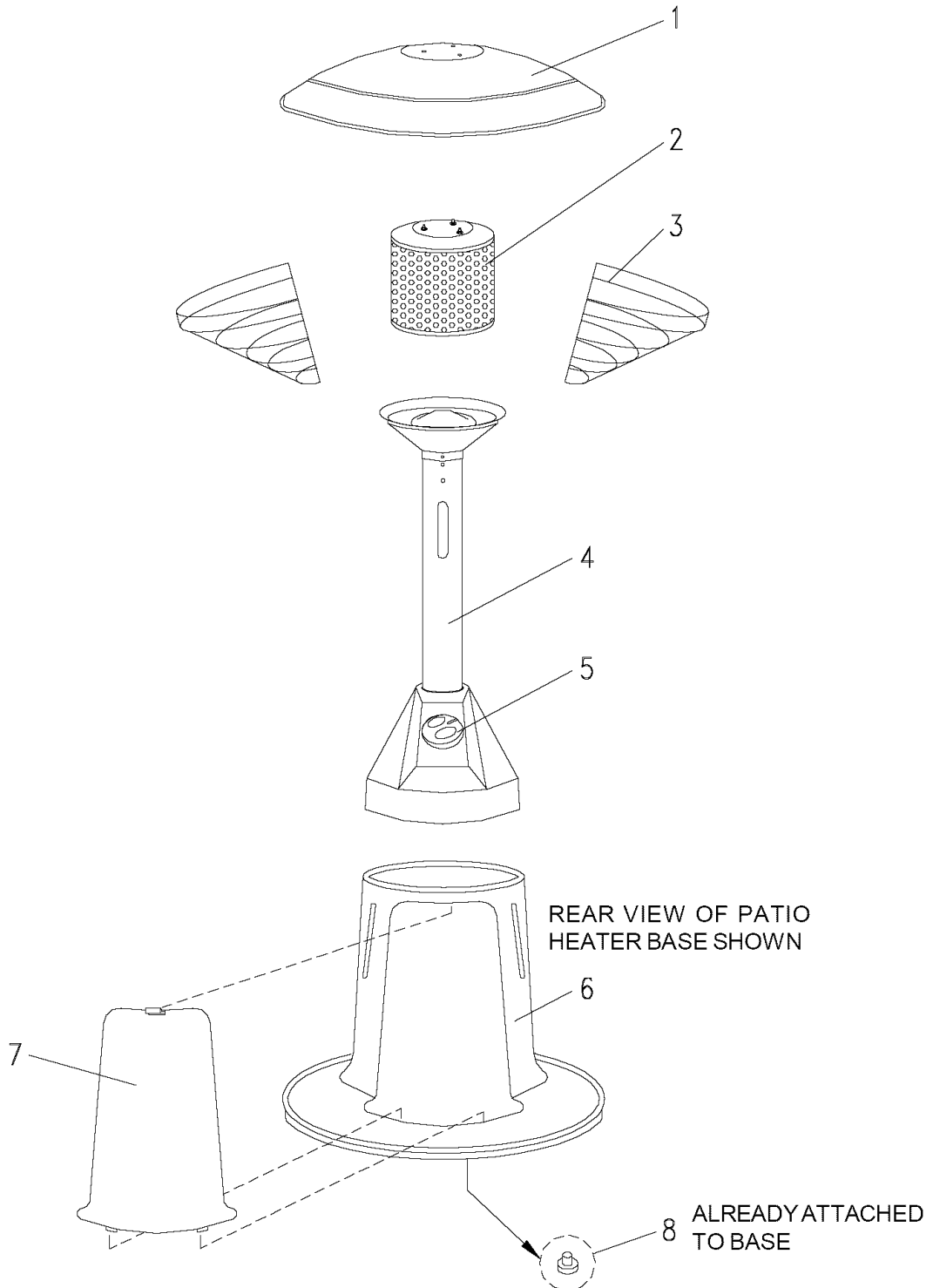
1/4" Cap Nut
Qty. 3
Part # PH018



M4x10 Round Head Screw
Qty. 4
Part # PH019

Parts Diagram

Remove all components from the shipping box and place within easy reach. Inspect patio heater parts for damage as you proceed. Do not assemble or operate your patio heater if parts appear damaged.



Customer Service Helpline: If you have questions about assembly or grill operation, or if there are damaged or missing parts when you unpack this unit from the shipping box, call us 8am - 8pm CST, Monday through Friday at: **1-888-317-7642**

Parts List

REF#	DESCRIPTION	PART#	QTY
1.	Aluminum Reflector	P7091A	1
2.	Emitter Grid	P7092A	1
3.	Safety Guard	P7093A	2
4.	Burner Assembly	P7094A	1
5.	Control Knob	P3417C	1
6.	Base	P7095A	1
7.	Cylinder Access Door	P7096A	1
8.	Plastic Pad	P7097A	3
---	Owner's Manual	P47B5A	1
---	Hardware Pack	P55J7A	1

If there are damaged or missing parts when you unpack this unit from the shipping box, or you have questions about assembly, call the Customer Service Helpline 8am - 8pm CST, Monday through Friday at 1-888-317-7642.

For the repair or replacement parts you need:
Call 8am - 8pm CST, Monday through Friday at
1-888-317-7642

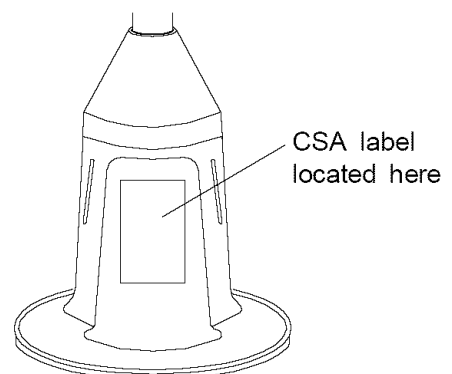
To make sure you obtain the correct replacement parts for your Table Top Patio Heater, please refer to the part numbers on this page. The following information is required to assure you receive the correct parts:

1. Model Number (found on the CSA Warning Label located on the rear Cylinder Access Door. See **Fig. 3** below.)
2. Part Number
3. Part Description
4. Quantity of parts needed

Important: Keep this Owner's Manual for convenient referral and for part replacement.

Important: Use only Grand Hall authorized parts. The use of any part that is not Grand Hall authorized can be dangerous and will also void your product warranty.

Figure 3



Assembly Instructions

Before assembling the patio heater, use the parts list to check that all necessary parts have been included. Inspect patio heater for damage as you proceed. Do not assemble or operate the patio heater if it appears damaged. If you have questions during the assembly process, call 1-888-317-7642, 8am - 8pm CST, Monday through Friday.

CAUTION:

Remove all parts and hardware from shipping box. Refer to the parts list and hardware pack illustrations and assemble the patio heater on a protective work surface to avoid scratching heater surfaces.

Tools Required for Assembly

- Protective gloves
- Eye protection
- One #2 Phillips Head Screwdriver
- One Adjustable Wrench

1. Attach the Reflector (Parts List Item #1) onto Emitter Grid (Parts List Item #2) by using 3 of the 1/4" Spring Washers and 1/4" Cap Nuts provided. See **Fig. 1**. Use adjustable wrench to tighten the Nuts.
2. Position the assembled Emitter Grid and Reflector onto the Burner Assembly. See **Fig. 2**. Rotate the Emitter Grid so the vertical welding line is in the back and the screw holes line up with the holes on Burner Assembly. Insert 4 of the M4x10 mm round head screws and tighten securely.
3. Position the top assembly (created in figures 1 and 2) on the Base. Be sure to line up the 4 Tabs on Burner Assembly with the 4 openings on Base. Make sure the Cylinder Access Door is located in the back and the Control Knob is located in front. Push the Burner Assembly downward onto Base until the Tabs snap into place. See **Fig. 3**.

Figure 1

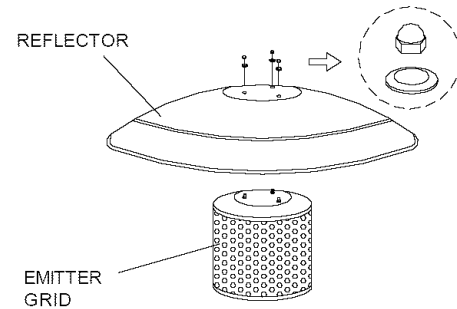


Figure 2

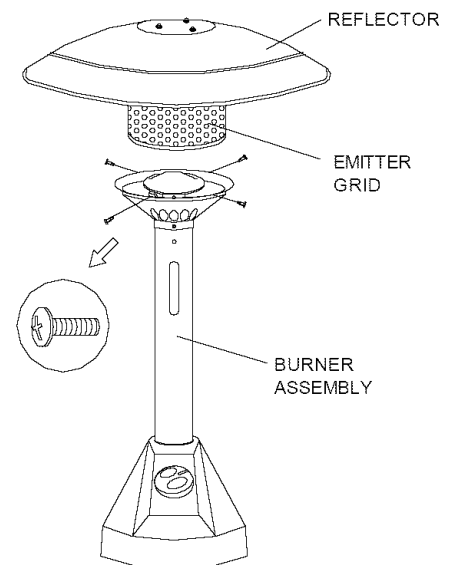
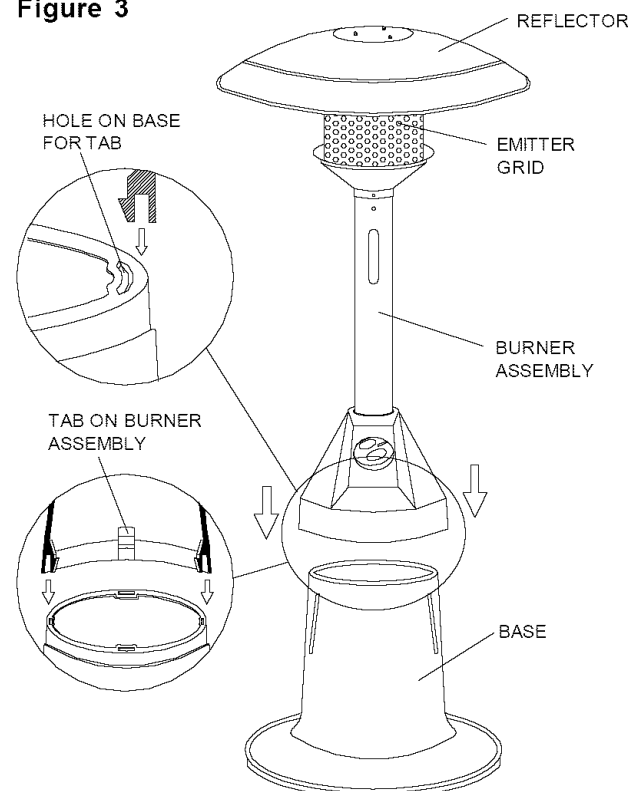


Figure 3



4. Insert the bottom wire of each Safety Guard (Parts List Item #3) through the hole on the burner post. Connect the Safety Guards together. See Fig. 4.

⚠ WARNING
Any Safety Guard or other protective device removed for servicing the patio heater must be replaced prior to operating the patio heater.

5. Attach the Cylinder Access Door (Parts List Item #7) to the patio heater base. See Fig. 5.

Figure 4

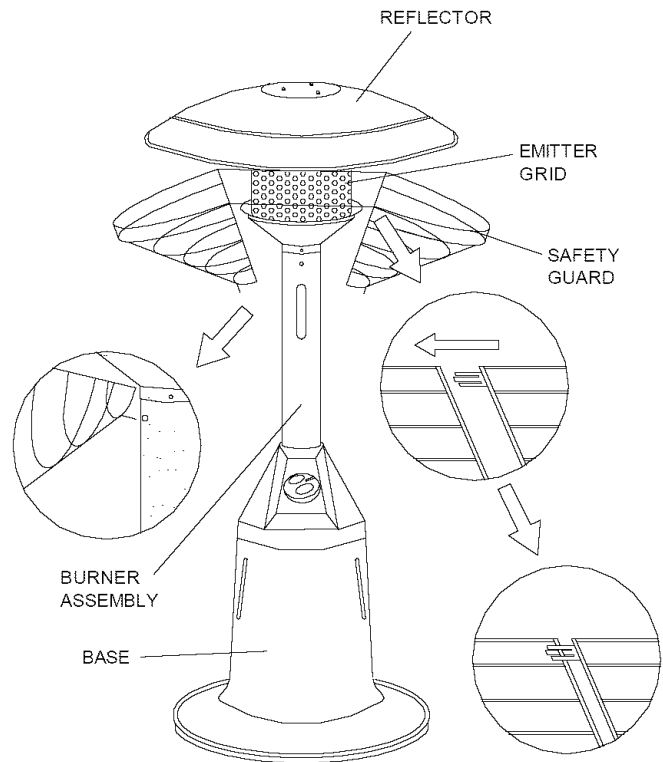
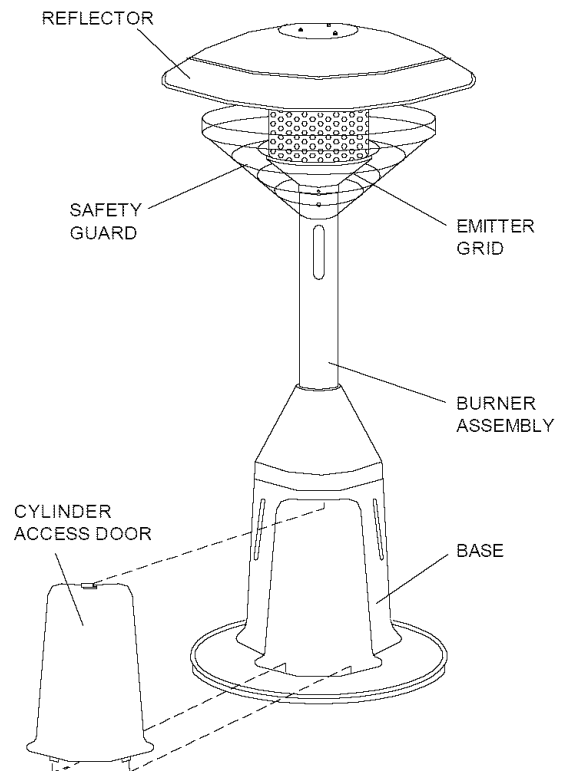


Figure 5



Connecting a Liquid Propane Gas Cylinder to your Patio Heater. (Must use LP gas only)

CAUTION: During and after each use, your patio heater will be hot. NEVER touch your patio heater or attempt to change the LP Gas Cylinder until you are certain it is cool to the touch.

1. Turn gas Control Knob, located on front of Patio Heater to the off position.
2. Remove the Cylinder Access Door. See Fig. 6.
3. Position the Cylinder (not included) under the regulator. Support the Cylinder with one hand and Connect the Cylinder head into the Regulator Inlet as shown Fig. 7. With your other hand turn the Cylinder from left to right until the Cylinder is securely connected to the Regulator Inlet.
4. Attach the Cylinder Access Door onto the Patio Heater Base.

Congratulations

Your Patio Heater is now ready for use. Before the first use and at the beginning of each season (and whenever the LP gas tank has been changed):

1. Read all safety, lighting and operating instructions.
2. Check gas valve orifices, burner tubes and burner ports for any obstructions.
3. Perform gas leak check according to instructions found on page 11 of this Owner's Manual.

Disconnecting a Liquid Propane Gas Cylinder from your Patio Heater

1. Turn gas Control Knob, located on front of Patio Heater to the off position. Allow Patio Heater to cool before removing Cylinder.
2. Remove the Cylinder Access Door.
3. Turn the Cylinder from right to left by hand, until Cylinder is disconnected from the Regulator Inlet, and remove from Patio Heater Base.
4. Replace the Cylinder Access Door to the Patio Heater Base.

CAUTION: When the patio heater is not in use, the gas must be turned off at the supply tank. Never store an LP Cylinder indoors.

Figure 6

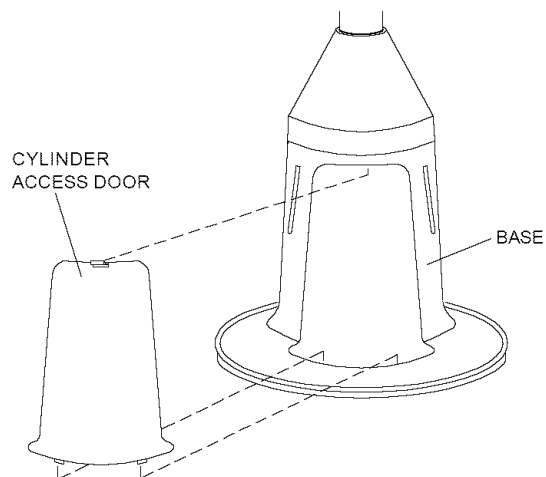
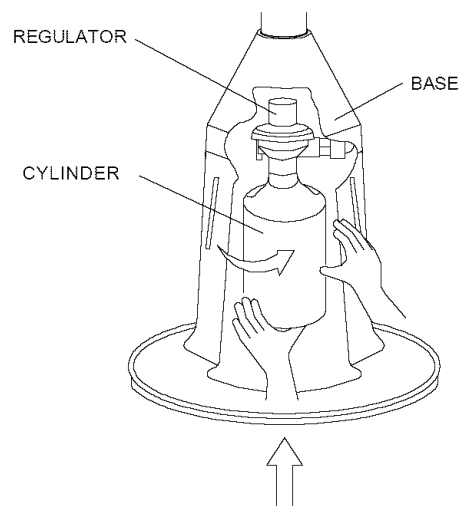


Figure 7



Checking For LP Gas Leaks

Check all gas connections with a soapy water solution to be sure they are tight and leak proof. To make soap solution, mix one part water with one part liquid detergent.

With the gas valve knob in the "OFF" position, connect disposable propane cylinder to regulator fitting by turning the cylinder left to right. Use a soapy water solution to check all connections for leaks before attempting to use your patio heater. If bubbles appear in the soap solution the connections are not properly sealed. Check each fitting and tighten or repair as necessary.



WARNING



If you have a gas leak that cannot be repaired by tightening, turn off the gas at the source, disconnect fuel line from your patio heater and call 1-888-317-7642 or your gas supplier for repair assistance.

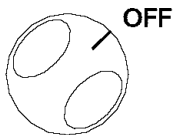
Lighting Instructions

Note: At first use, the Patio Heater Reflector may emit a slight odor and smoke due to the burn-off of oils used in the manufacturing process of this aluminum part. This is to be expected.

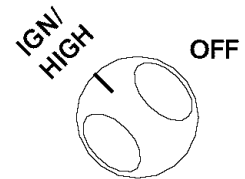
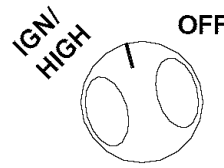
1. Familiarize yourself with the safety instructions and warnings at the front of this Owner's Manual. Do not smoke while lighting patio heater or checking the gas supply connection.

Be sure your patio heater is placed in accordance with the minimum clearance from combustibles as described on page 3 of this Owner's Manual.

2. Be sure your LP Gas Cylinder is filled.
3. Check the cylinder connection for leaks by applying a mixture of 50% water and 50% liquid soap solution.
4. The Control Knob must be in the full "OFF" position.



5. Push and HOLD the Control Knob in fully. Rotate knob left and STOP about 1/4 inch before the IGN/ HIGH position. Hold Control Knob at this position for 3 to 4 seconds allowing gas to travel up to the burner. Then SLOWLY turn Control Knob left to the "IGN / HIGH" position, until a click sound is heard. You may have to repeat this step 3 or 4 times to light the burner.



6. Once the burner flame is lit, continue pressing the Control Knob for 15 seconds to ensure the burner remains lit. Then release the Control Knob and adjust the heat to desired level from "HIGH" to "LOW".
7. If the burner does not stay lit, turn the Control Knob to the "OFF" position, wait 5 minutes for gas to clear, then repeat the lighting procedure again.

WARNING

A strong gas smell, or the hissing sound of gas indicates a serious problem with your Patio Heater or the LPG Cylinder. Failure to immediately follow the steps listed below could result in a fire or explosion which could cause serious bodily injury, death, or property damage.

- Shut off gas supply to the Patio Heater.
- Extinguish any open flame.
- Get away from the LPG Cylinder.
- Do not try to fix the problem yourself.
- If odor continues or you have a fire you cannot extinguish, call your fire department. Do not call near the LPG Cylinder, because your telephone is an electrical device and could create a spark resulting in fire and/or explosion.

Shutdown Instructions

1. Turn gas Control Knob to the off position. Allow unit to cool before removing 1 pound LP Cylinder.
2. Open the rear mounted Cylinder Access Door and turn the cylinder by hand right to left until disconnected from regulator inlet.
3. NEVER store an LP Cylinder indoors.
4. Replace the rear mounted Cylinder Access Door.

Frequently Asked Questions

Question: Who do I call with questions about my Grand Hall Patio Heater assembly or if parts are damaged or missing from my shipping box?

Answer: Call the Customer Service Helpline 8am - 8pm CST, Monday through Friday, at 1-888-317-7642.

Question: Can I convert my Patio Heater from LP gas to natural gas?

Answer: No, this patio heater is manufactured to exact specifications and is CSA Design Certified for LP gas use only. For your own safety, conversion kits are not available and any attempt to convert your patio heater to natural gas will void your product warranty.

Question: When I originally started my patio heater there was some smoke and an odor coming from the Reflector. Is this normal?

Answer: Yes, at first use, the Patio Heater Reflector may emit a slight odor and smoke due to the burn-off of oils used in the manufacturing process of this aluminum part. This is to be expected.

Question: The radius of warmth from my patio heater seems to vary, sometimes greater and sometimes with less coverage area. What affects this radius?

Answer: Various weather conditions as well as the placement of your patio heater can affect the radius. Without winds and with temperatures above 40 degrees Fahrenheit you can warm a radius up to 4 feet. Higher winds and colder air will reduce the warming radius.

Question: The Patio Heater will not light. Why?

Answer:

- The burner is not lit.
- Low gas pressure. Be sure LPG Cylinder is filled.
- Manual valve not in "IGN / HIGH" position.
- The gas line may need to be purged.

Question: Why won't the burner stay lit?

Answer:

- May be excessive winds. Position your patio heater in a more protected area away from wind of 10 mph or more, with proper clearances.
- Low gas pressure. Be sure LPG Cylinder is filled.
- The gas line may need to be purged.

Question: How should I clean my Patio Heater?

Answer: Keep the Burner Assembly and its components clear of dirt cobwebs by brushing or wiping the areas clean. Do not spray cleaners into the emitter grid because of potential harm to internal components.

The stainless steel post and reflector can be cleaned with a stainless steel spray cleaner and a soft cloth. Do not use gasoline, paint thinner or any other cleaning agent that can be combustible or corrosive.

Question: Where can I buy replacement parts?

Answer: For the repair or replacement parts you need call 8am - 8pm CST, Monday through Friday at 1-888-317-7642. Use only Grand Hall authorized parts. The use of any part that is not Grand Hall authorized can be dangerous and will also void your product warranty.

Question: Sometimes I hear a humming sound coming from my regulator. What causes this?

Answer: This is not to be confused with the "hissing" sound associated with leaking gas. The humming noise you may hear is the sound of gas flowing through the regulator. You may have heard a similar sound at the gas meter at your home. Reasonable humming should be expected and will not affect the performance of your patio heater.

Customer Service Helpline: If you have questions about assembly or grill operation, or if there are damaged or missing parts when you unpack this unit from the shipping box, call us 8am - 8pm CST, Monday through Friday at: **1-888-317-7642**

⚠ WARNING: Improper installation, adjustment, alteration, service or maintenance can result in a fire or explosion that could cause serious bodily injury, death, or property damage. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

If there are damaged or missing parts, including your Owners Manual, when you unpack this unit from the shipping box, or if you have questions about assembly or operation, call the Customer Service Helpline, 8am - 8pm CST, Monday through Friday at: **1-888-317-7642**.

Caution: The gas pressure regulator provided with this appliance must be used. This regulator is set for an outlet pressure of 11" W.C.

⚠ WARNING: Fuels used in gas or oil fired appliances and the products of combustion of such fuels, contain chemicals known to the state of California to cause cancer, birth defects and other reproductive harm.

Caution: Hot while in operation. Do not touch. Keep children, clothing, and furniture away.

Caution: Keep gasoline and other liquids which have flammable vapors away.

Lighting Instructions:

1. Be sure your patio heater is placed in accordance with the minimum clearance from combustibles as described below*.
2. Be sure your LP Gas Cylinder is filled.
3. Check the cylinder connection for leaks by applying a mixture of 50% water and 50% liquid soap solution.
4. The Control Knob must be in the full "OFF" position.
5. Push and HOLD the Control Knob in fully. Rotate knob left and STOP about 1/4 inch before the "IGN / HIGH" position. Hold Control Knob at this position for 3 to 4 seconds allowing gas to travel up to the burner. Then SLOWLY turn Control Knob left to the "IGN / HIGH" position, until a click sound is heard. You may have to repeat this step 3 or 4 times to light the burner.
6. Once the Burner flame is lit, continue pressing the Control Knob for 15 seconds to ensure the Burner remains lit. Then release the Control Knob and adjust the heat to desired level from "HIGH" to "LOW".
7. If the Burner does not stay lit, turn the Control Knob to the "OFF" position, wait 5 minutes for gas to clear, then repeat the lighting procedure again.

Shutdown Instructions:

1. Turn gas Control Knob to the off position. Allow unit to cool before removing 1 pound LP Cylinder.
2. Open the rear mounted Cylinder Access Door and turn the cylinder by hand right to left until disconnected from regulator inlet.
3. Never store an LP Cylinder indoors.
4. Replace the rear mounted Cylinder Access Door.

MODEL # 22899

BTURATING: 6,500 to 11,000

GAS: 1 pound Liquid Propane Cylinder

SUPPLY PRESSURE: 11.0" W.C.

MANIFOLD PRESSURE: 10.5" W.C.

CSA STANDARD NO. 5.90 for gas fired infrared patio heaters. **FOR OUTDOOR USE ONLY.** IF STORED INDOORS YOU MUST REMOVE AND STORE THE GAS CYLINDER OUTDOORS.

*Minimum clearance from combustible materials: Sides: 12", Top: 12", Below Reflector: 30"

Made in Taiwan

Exported By: Grand Hall Enterprise Co., Ltd.

9th Fl., No.289, Rueiguang Rd., Neihu, Taipei, Taiwan (114)

P47B5A - Date: 10/14/2004

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