



OUTDOOR RADIANT HEATER OWNER'S MANUAL



A MESSAGE TO OUR CUSTOMERS

Thank you for selecting A GRANDFIRE Patio Heater.

Your grill has been designed and built with meticulous attention to detail and it offers unique and powerful features. We have developed this Users' Manual to assist you on use and maintenance. It contains valuable information on how to properly install, operate and maintain your new appliance for optimum safety and performance.

Thanks again for your choice. Enjoy!

GUIDANCE FOR ASSEMBLY & OPERATION INSTRUCTION

This guidance is mainly based on standards: EN14543:2005+A1 & AS4565:2004+A1:2011.

This guidance indicates both mandatory and suggestive clauses which will be indentified in the following text:

EN14543:2005+A1: 2007: Specification for dedicated liquefied petroleum gas appliances -Parasol patio heaters - flue less radiant heaters for outdoor or amply ventilated area use.






AS4565:2004+A1:2011

NOTE TO INSTALLER

This manual must remain with heater. An installer-supplied gas shut-off valve must be installed in an easily accessible location. Outdoor installations must conform to local codes or, in the absence of local codes, with EN498 & AS4565 as well as the requirements of any local council, gas, electricity authority or other statutory regulation. Spanner tightens all gas fittings as per instructions.

ASSEMBLY & OPERATION INSTRUCTION

PRIOR TO USE:

-  Read the instructions before using the appliance.
-  Only to be used outdoors
-  Do not move the appliance during use
-  Any modification of the appliance may be dangerous
-  Parts sealed by the manufacturer or his agent must not be altered by the user.

IMPORTANT:

Hazardous fire or explosion may result if these instructions are ignored.



It is the user's responsibility to see that this appliance is properly assembled, installed, and taken care of. Failure to follow instructions in this manual could result in serious bodily injury and/or property damage. Any modification of the appliance, misuse, or failure to follow the instructions may be dangerous and will invalidate your warranty.

DANGER:

If You Smell Gas

- ◆ Shut off gas to the appliance.
- ◆ Extinguish any open flame, avoid using any electrical appliance.
- ◆ Ventilate the area.
- ◆ Check gas connections with soap solution.
- ◆ If odor still exists, immediately call your gas supplier or your fire department.

WARNING:

-  Accessible parts may be very hot. Keep young children away.
-  Do not store or use petrol or other flammable vapor or liquids in the vicinity




Manufactured in China
Hauland Limited
1b Douglas Alexander Parade, Albany, Auckland
PO Box 305 308 Triton Plaza,
North Shore 0757, New Zealand
Tel: 64 9 415 9939 / 0800 BUFFALO
Fax: 64 9 415 9935
Web: www.hauland.co.nz

TABLE OF CONTENTS

Information.....	4
Important Safeguards.....	5
Exploded View & Parts list	8
Locating Your Appliance.....	12
Assembly Instruction.....	14
Installing LP Gas Tank.....	16
Operating Instructions.....	17
Checking for Leaks.....	17
Before lighting.....	17
Lighting.....	18
When Heater is ON.....	18
Cleaning and Care.....	19
Cleaning Surfaces.....	19
Maintenance.....	19
Storage.....	20
Heating Features.....	21
Benefits.....	21
Specifications.....	22
Patio Heater V.S. Radiant Heater.....	22
Troubleshooting.....	23
Limited Warranty.....	25
For customer Reference.....	26
For More Information.....	26

The use and installation of this product must conform to local codes. In absence of local codes use the National Fuel Gas Code, *EN14543:2005+A1: 2007* and *AS 4565-2004, Radiant gas heaters for outdoor and non-residential indoor use*. Save these instructions for future reference. If you are assembling this unit for someone else, give this manual to him or her to read and same for future reference.

Manufactured in China for:
Hauland Limited.

 DANGER 	CARBON MONOXIDE HAZAED <ul style="list-style-type: none"> ◆ 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, car or home. 	 <u>WARNING</u> FOR YOUR SAFETY: <ul style="list-style-type: none"> ◆ Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. ◆ Read the installation, operation, and maintenance instruction thoroughly before installing or service this equipment. ◆ Failure to follow these instructions could result in fire or explosion, which could cause property damage, personal injury, or death.
--	--	---

INFORMATION


Manufacturer	HAULAND LIMITED			
Product Name	GRANDFIRE			
Model Number	BPH-100d (BPH-100)/BPH-200			
Cat	I _{3B/P(30)}	I _{3B/P(50)}	ULPG	Propane
Country code	BE, CY, DK, EE, FR, GB, HU, IT, LT, NL, NO, SE, SI, SK, RO, HR, TR, BG, IS, LU, MT, FI	AT, CH, DE, SK	Australia and New Zealand	Australia
Gas Type and Pressure	G30 Butane and G31 Propane at 30mbar	G30 Butane and G31 Propane at 50mbar	Butane, Propane, and Butane/Propane Mixture at 2.75kPa	Propane at 2.75kPa
Nominal heat input	Q _n = See Table 1			
Total Heat Input	ΣQ _n = See Table 1			
Electrical Supply				
 CAUTION:				
USE OUTDOORS ONLY				
READ THE INSTRUCTIONS BEFORE USING THE APPLIANCE				
MADE IN CHINA				
WARNING:				
ACCESSIBLE PARTS MAY BE VERY HOT. KEEP YOUNG CHILDREN AWAY				

Table 1:

Model	Injector Size (mm)		Q_n (Kw)	ΣQ_n (g/h)
	I _{3B/P(30)}	I _{3B/P(50)}		
BPH-100	1.0	0.9	4.2	306
BPH-200	1.2	1.05	6.4	466
Model	Injector Size (mm)		Total (MJ/h) For ULPG	Total (MJ/h) For PROPANE
	ULPG	PROPANE		
BPH-100d	1.05	1.1	14.5	15
BPH-200	1.3	1.3	21.5	21.5

According to the **CE** requirements, please do not tamper with or modify regulator. Use only regulator which supply the pressure listed in the tables above. A regulator of 30 mbar must be used for butane or a 50 mbar regulator for propane. This appliance must be installed and the gas cylinder stored in accordance with the regulations in force.

IMPORTANT SAFEGUARDS

DANGER:

If You Smell Gas

- ◆ Shut off gas to the appliance.
- ◆ Extinguish any open flame, avoid using any electrical appliance.
- ◆ Open lid and ventilate the area.
- ◆ Check gas connections with soap solution.
- ◆ If odor still exists, immediately call your gas supplier or your fire department.

WARNING

For Your Safety:

- ◆ Do not store spare LP cylinder within 10 feet (3.05m) of this appliance.
- ◆ Do not store or use gasoline or other flammable vapors and liquids within 25 feet (7.62m) of this appliance or any other appliance.
- ◆ An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

DANGER: Failure to follow the dangers, warnings and cautions in this manual may result in serious bodily injury or death, or in a fire or an explosion causing damage to property.

WARNING:

- This heater is for outdoor use only, and shall not be used in a building, garage, or any other enclosed area.
- Always maintain at least 1500 mm clearance (top), 750 mm clearance (rear) and 750 mm clearance (side) from combustible materials.
- This heater is for use with liquid propane (LP) gas only. The conversion to or attempted use of natural gas in this LP gas heater is dangerous and will void your warranty.
- LP Gas Characteristics:
 - a) LP gas is flammable and hazardous if handled improperly. Become aware of the characteristics before using any LP gas product.
 - b) LP gas is explosive under pressure, heavier than air, and settles and pools in low areas.
 - c) LP gas in its natural state has no odor. For your safety, an odorant is added that smells like rotten cabbage.
 - d) Contact with LP gas can cause freeze burns to skin.
- LP gas tank needed to operate. Only tanks marked "propane" may be used.
- The LP gas tank must be constructed and marked in accordance with the Specifications for LP gas Cylinder to the A.U. standards.
- LP gas tank must be arranged for vapor withdrawal.
- The LP gas tank must have a listed overfilling prevention device (ODP)
- Only use 20-pound cylinders equipped with a cylinder connection device compatible with connection for outdoor cooking appliances.
- The LP gas tank must have tank collar to protect the tank valve.
- Never use an LP gas tank with a damaged body, valve, collar, or footing.
- Dented or rusted LP gas tanks may be hazardous and should be checked by your LP gas supplier prior to use.
- The LP gas tank should not be dropped or handled roughly.
- Tanks must be stored outdoors out of the reach of children and must not be stored in a building garage or any other enclosed area. Your tank must never be stored where temperature can reach over 52°C (125°F).
- Never keep a filled LP gas tank in a hot car or car trunk. Heat will cause the gas pressure to increase, which may open the relief valve and allow gas to escape.
- Do not store a spare LP gas tank under or near this appliance.
- Never fill the tank beyond 80 percent full.
- Never attempt to attach this heater to the self-contained LP gas system of a camper trailer, motor home, or house.
- The use of alcohol, or prescription or non-prescription drugs may impair the consumer's ability to properly assemble or safely operate the appliance.

- Your heater connections have been checked at the factory for leaks. Recheck all connections, as movement in shipping can loosen.
- Check for leaks even if your unit was assembled for you by someone else.
- Do not operate if gas leak is present. Gas leaks may cause a fire or explosion.
- You must follow all leak-checking procedures before operating. To prevent fire or explosions when testing for a leak:
 1. Always perform leak test before lighting the heater and each time the tank is connected for use.
 2. No smoking. Do not use or permit sources of ignition in the area while conducting a leak test.
 3. Conduct the leak test outdoors in a well-ventilated area.
 4. Do not use matches, lighters, or any flame to check for leaks.
 5. Do not use heater until any and all leaks are corrected.

If you are unable to stop a leak, disconnect the LP gas supply. Call a gas appliance serviceman or your local LP gas supplier.
- Do not store or use gasoline or other flammable liquids or vapors within 25 feet (7.62m) of this appliance.
- Do not use in an explosive atmosphere. Keep heater area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- Keep all combustible items and surfaces away from the heater at all times. Do not use this heater or any gas product under any overhead or near any unprotected combustible constructions.
- Combustion of propane creates carbon monoxide, which, when used in enclosed areas, can kill you.
- It is essential to keep the heater's valve compartment, burners, and circulating air passages clean. Inspect heater before each use.
- Installation and repair should be done by a qualified service person.
- Do not alter heater in any manner.
- Do not use the heater unless it is completely assembled and all parts are securely fastened and tightened.
- This heater should be thoroughly inspected before

each use. Clean and inspect the hose before each use of the appliance. If there is evidence of abrasion, wear, cuts, or leaks, the hose must be replaced prior to the appliance being put into operation.

- Only for EU countries the regulator and hose are not included in the grill package, should purchase it from local store; but for AU they will be included in the grill package.
- Inspect heater before each use. If a damaged part is detected, do not operate until an original equipment part has been properly installed.
- Use only Hauland Limited authorized parts. The use of any part that is not factory authorized can be dangerous. This will also void your warranty.
- Top square lid and burner are extremely hot to touch during operation. Never touch the lid or burner while the heater is operating. Wait for unit to cool down (approximately 45 minutes) after use.
- During operation, do not touch burner assembly. The surface of heater's emitter can reach temperatures approaching 870°C (1600°F).
- Do not install or use in or on boats or recreational vehicles.
- Do not use heater in winds that exceed 10M.P.H..
- Unit will operate at reduced efficiency below 5°C (40°F)
- Do not leave a lit heater unattended, especially keep children and pets away from heater at all times.
- Always use extreme caution when near heater. Alert both children and adults to the hazards of high temperatures to avoid burns or clothing catching fire.
- Do not attempt to move heater when in use. Allow the heater to cool before moving or storing.
- Storage of heater indoor is permissible only if the tank is disconnected, removed from the heater and properly stored outdoors.
- Do not attempt to disconnect the gas regulator from the tank gas fitting while the heater is in use.
- Always place your heater on a hard, level surface.
- Use extreme caution on wooden decks.
- Move gas hoses as far away as possible from hot surfaces.
- Keep all electrical cords away from a hot heater.
- Do not use heater for indoor cooking or heating. TOXIC fumes can accumulate and cause asphyxiation.

- Keep sprinklers and other water sources away from burner and controls.
- Do not hang clothing or other flammable materials either on or near heater.
- Always allow heater to cool before attempting service.
- Any guard or other protective device removed for servicing the heater must be replaced prior to operating the heater.
- Certain materials or items, when stored under heater, will be subjected to radiant and could be seriously damaged.
- After a period of storage and/or nonuse, check for leaks, burner obstruction and inspect for any abrasion, wear, cuts to the hose.
- If at any time you are unable to light the burner and smell gas, wait 5 minutes to allow gas to dissipate before attempting to light again.
- Failure to not wait 5 minutes to allow the gas to clear if the heater does not light, may result in an explosive flame-up.
- 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.

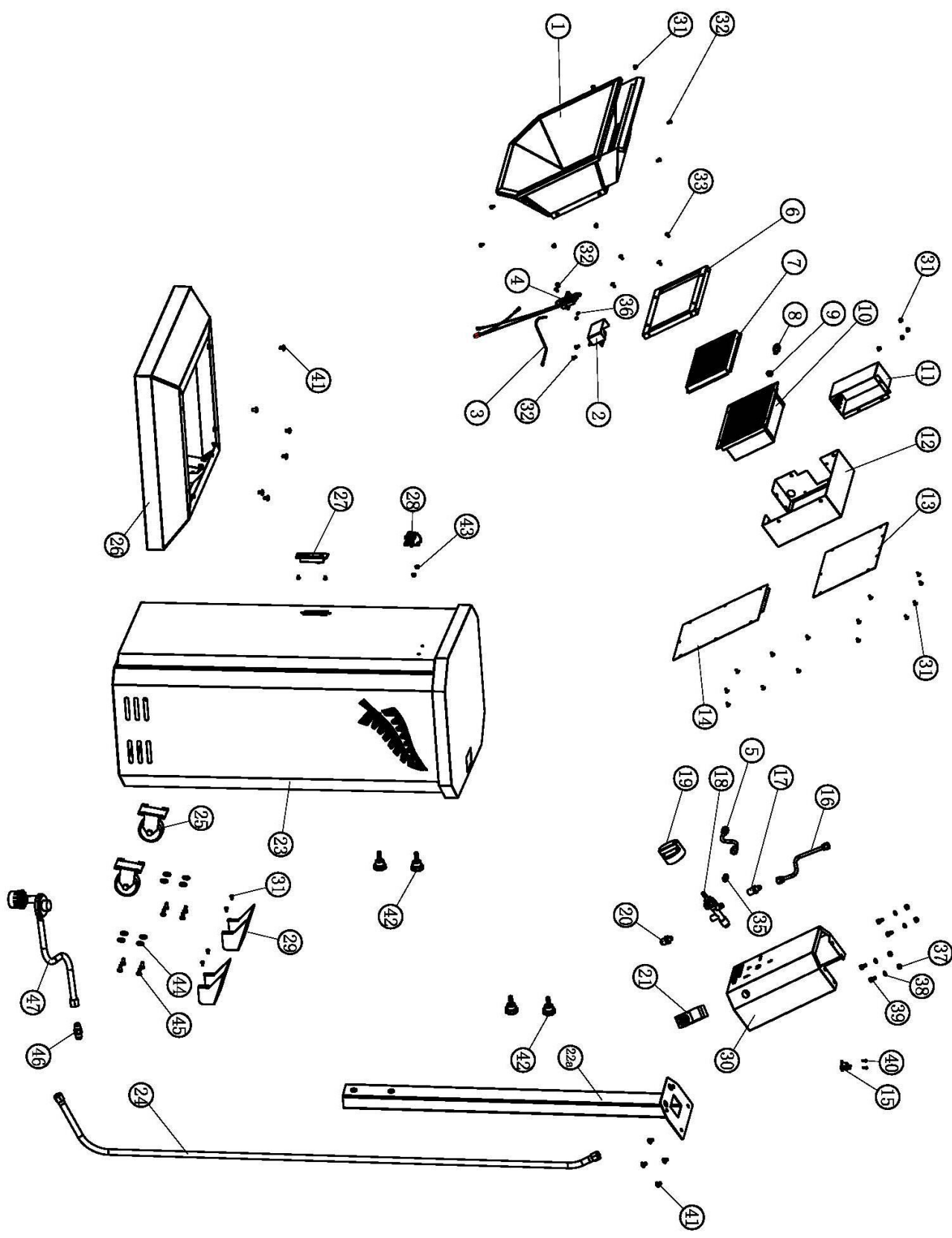
- Avoid inhaling fumes from the heater's first use. Smoke and odor from the burning of oils used in manufacturing will appear. Both smoke and odor will dissipate after approximately 30 minutes. The heater should NOT produce thick black smoke.
- If heater is not in use, the gas must be turned off at the supply tank.
- Do not use this appliance without reading "Operating Instruction" in this manual.
- Deaths, serious injury or damage to property may occur if the above is not followed exactly.
- This appliance is not designed for marine use, and shall not be installed on a boat or any marine craft.
- Do not place articles on or against this appliance.
- Do not use or store flammable materials near this appliance.
- Do not spray aerosols in the vicinity of this appliance while it is in operation.

WARNING!

- Children and adults should be alerted to the hazards of high surface temperatures, burners and clothing ignition.
- Young children should be carefully supervised when they are in the area of the appliance.
- Clothing or other flammable materials should not be hung from the appliance, or placed on or near the appliance.
- Any guard or other protective device removed for servicing the appliance must be replaced prior to operating the appliance.
- Installation of appliances fitted to fixed gas supply systems and repair of all appliances must be carried out by a qualified service person.
- The recommended period between inspections period by a qualified service person.
- A statement that more frequent cleaning may be required as necessary.
- A statement that it is imperative that control compartment, burners and circulating air passageways of the appliance be kept clean.

EXPLODED VIEW

Model: BPH-100d



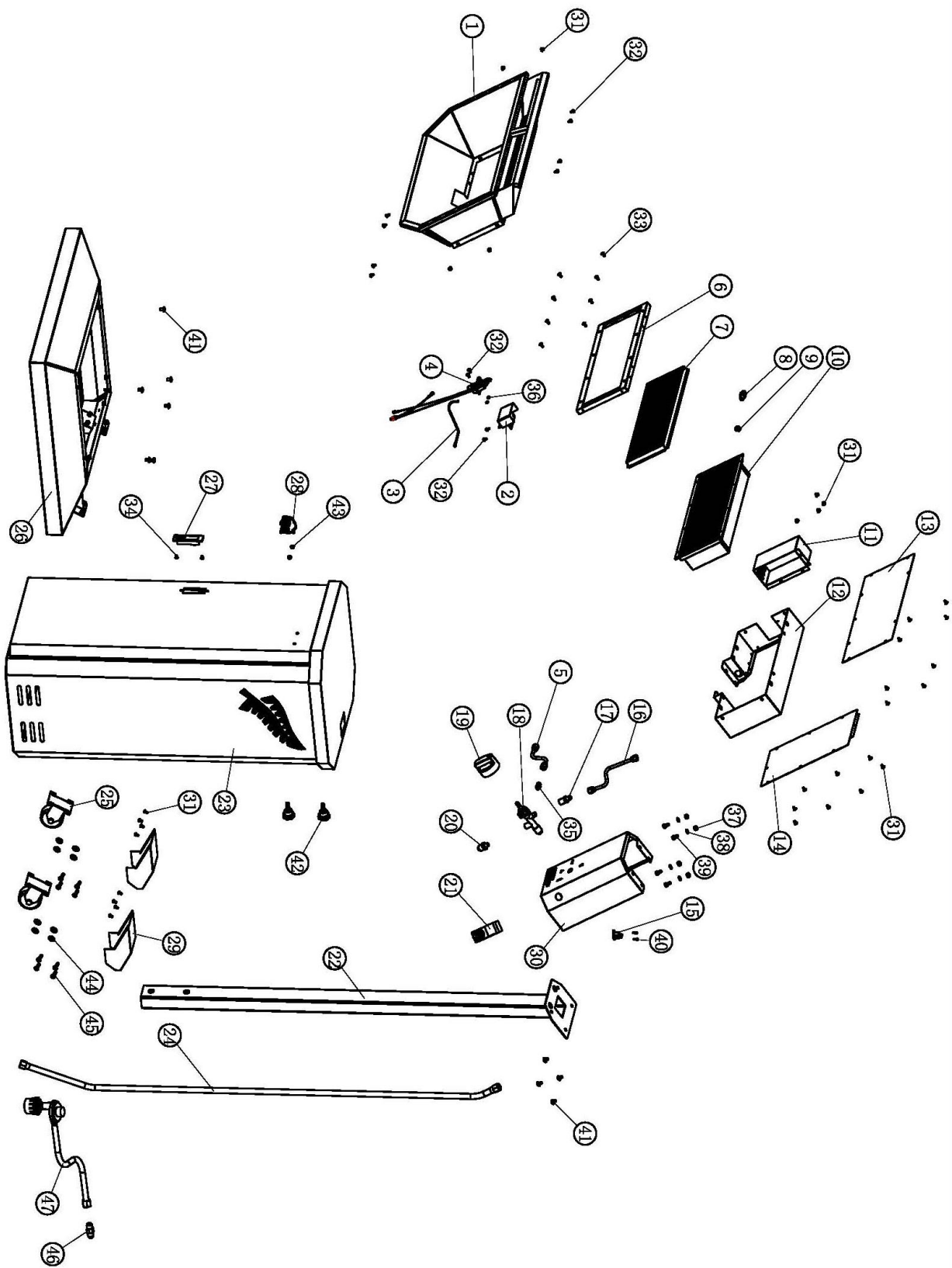
PARTS LIST

Model: BPH-100d (BPH-100)

ITEM	PART NO	DESCRIPTION	BPH-100d
1	BPH100dP01	TOP REFLECTOR	X
2	BPH100dP02	IGNITER PROTECTOR	X
3	BPH100dP03	IGNITER WIRE 320mm	X
4	BPH100dP04	IGNITION DEVICE	X
5	BPH100dP05	FLEX TUBE - PILOT 325mm	X
6	BPH100dP06B	COVER ASSEMBLY FOR INFRARED BURNER	X
7	BPH100dP07	WIRE MESH	X
8	BPH100dP08	INJECTOR	X
		—Φ1.0	I _{3B} /P(30)
		—Φ0.9	I _{3B} /P(50)
		—Φ1.05	ULPG
		—Φ1.1	PROPANE
9	BPH200P09	FIXING NUT(BRASS)	X
10	BPH100dP10	INFRARED BURNER ASSEMBLY	X
11	BPH100dP11	SIDE COVER	X
12	BPH100dP12	REAR TOP SHELL	X
13	BPH100dP13	REAR COVER FOR INFRARED BURNER ASSEMBLY	X
14	BPH100dP14	REAR COVER FOR CONTROL BOX	X
15	BPH100dP15	ANTI-TIP DEVICE	X
16	BPH100dP16	FLEX TUBE 500mm	X
17	BPH100dP17	OUTLET ADAPTER	X
18	BPH100dP18	GAS VALVE W/ SAFETY DEVICE	X
19	BPH100dP19	CONTROL KNOB	X
20	BPH100dP20	INLET ADAPTER	X
21	BPH100dP21	IGNITER STARTER	X
22	BPH100dP22a	SS SUPPORT 977mm	X
23	BPH100dP23	CABINET	X
24	BPH100dP24	HOSE 1150mm	X
25	BPH100dP25	WHEELS	X
26	BPH100dP26	PEDESTAL ASSEMBLY	X
27	BPH100dP27	DOOR LOCKER	X
28	BPH100dP28	BUFFALO LOGO	X
29	BPH100dP29	PROTECTIVE HOUSING	X
30	BPH100dP30	CONTROL HOUSING	X
31		PHILIPS BIG FLAT HEAD SCREW M4*8	X
32		CROSS RECESS PAN HEAD SCREW M4*8	X
33		PHILIPS BIG FLAT HEAD SCREW M4*10	X
34		CROSS RECESS PAN HEAD SCREW M4*6	X
35	BPH100dP35	CONNECTOR FOR PILOT AND VALVE	X
36		HEXAGON NUT M4	X
37		HEXAGON NUT M6	X
38		TAPER LOCK WASHER 6	X
39		HEXAGON BOLT M6*10	X
40		CROSS RECESS PAN HEAD SCREW M3*10	X
41		PHILIPS BIG FLAT HEAD SCREW M6*10	X
42	BPH100dP23	STAR' BOLT M8*16	X
43		FLANGE NUT M4	X
44		BIG FLAT WASHER 6	X
45		HEXAGON BOLT M6*16	X
46	BPH100dP46	LP FITTING	X
47	BPH100dP47	LP REGULATOR (T-2A)	X

EXPLODED VIEW

Model: BPH-200



PARTS LIST

Model: BPH-200

ITEM	PART NO	DESCRIPTION	BPH-200
1	BPH200P01	TOP REFLECTOR	X
2	BPH100P06	IGNITER PROTECTOR	X
3	BPH100P09	IGNITER WIRE	X
4	BPH100P04	IGNITION DEVICE	X
5	BPH100P05	FLEX TUBE- PILOT	X
6	BPH200P10A	COVER ASSEMBLY FOR INFRARED BURNER	X
7	BPH200P10B	WIRE MESH	X
8	BPH200P08	INJECTOR	X
		—Φ1.2	L _{3B/P} (30)
		—Φ1.05	L _{3B/P} (50)
		—Φ1.3	ULPG
		—Φ1.3	PROPANE
9	BPH200P09	FIXING NUT(BRASS)	X
10	BPH200P10	INFRARED BURNER ASSEMBLY	X
11	BPH200P11	SIDE COVER	X
12	BPH200P12	REAR TOP SHELL	X
13	BPH200P13	REAR COVER FOR INFRARED BURNER ASSEMBLY	X
14	BPH200P14	REAR COVER FOR CONTROL BOX	X
15	BPH100P13	ANTI-TIP DEVICE	X
16	BPH200P16	FLEX TUBE 500mm	X
17	BPH100P15	OUTLET ADAPTER	X
18	BPH100P16	GAS VALVE W/ SAFETY DEVICE	X
19	BPH100P18	CONTROL KNOB	X
20	BPH100P19	INLET ADAPTER	X
21	BPH100P17	IGNITER STARTER	X
22	BPH200P22	SS SUPPORT	X
23	BPH200P24	TANK BASE	X
24	BPH100P21	HOSE 1400mm	X
25	BPH100P25	WHEELS	X
26	BPH200P26	PEDESTAL ASSEMBLY	X
27	BPH100P11	DOOR LOCKER	X
28	BPH100P10	BUFFALO LOGO	X
30	BPH100P12	CONTROL BOX	X
31		PHILIPS BIG FLAT HEAD SCREW M4*8	X
32		CROSS RECESS PAN HEAD SCREW M4*8	X
33		PHILIPS BIG FLAT HEAD SCREW M4*10	X
34		CROSS RECESS PAN HEAD SCREW M4*6	X
35	BPH100P35	CONNECTOR FOR VALVE AND PILOT	X
36		HEXAGON NUT M4	X
37		HEXAGON NUT M6	X
38		TAPER LOCK WASHER 6	X
39		HEXAGON BOLT M6*10	X
40		CROSS RECESS PAN HEAD SCREW M3*10	X
41		PHILIPS BIG FLAT HEAD SCREW M6*10	X
42	BPH100P23	"STAR" BOLT M8*16	X
43		FLANGE NUT M4	X
44		BIG FLAT WASHER 6	X
45		HEXAGON BOLT M6*16	X
46	BPH100P46	LP FITTING	X
47	BPH100P47	LP REGULATOR (T-2A)	X

LOCATING YOUR APPLIANCE

Most importantly, this is an outdoor appliance. Ensure your appliance is positioned safely away from anything that can catch fire.

Outdoor Use Only: Under no circumstances is this appliance to be used indoors. This includes garages or any other enclosed area.

Clearance from Combustibles: Ensure your appliance remains at a distance of at least 45 cm (18") from any combustible material such as wood, gyprock, paper and plants. Do not store combustible materials, gasoline or flammable liquids or vapors within 45 cm (18") of the appliance.

Adequate Ventilation: Ensure there is adequate ventilation for both the appliance and cylinder. This is required not only for proper combustion, but also to prevent gas build up.

Firm Level Surface: Use your appliance only on a firm level surface. This appliance is not designed for recreational vehicles, and shall not be installed on a boat or any marine craft.

Protection from Weather: Keep the appliance protected from adverse weather, including rain and high winds. Polyvinyl covers are available that have been specially designed for this range of appliances.

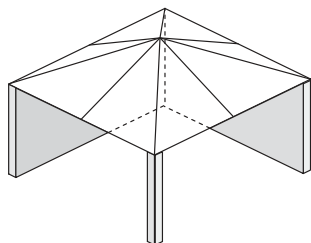
Allow clear access to the entire gas supply hose and regulator.

Maintenance Access: When your appliance is installed, you should be able to access the gas supply line including the gas piping or hose, gas regulator, gas cylinder and any shut off valves.

Partial Enclosures: Many backyards have areas that are partially closed off, such as balconies and pergolas. In some cases, it is hard to decide whether these partially enclosed areas should be classified as indoor areas, particularly in terms of permanent (non-closable) ventilation. The gas safety authorities have agreed on the definition of partial enclosures below.

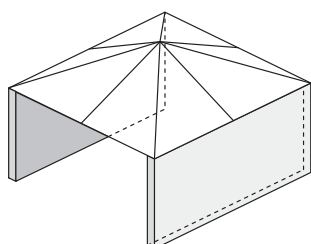
Partial Enclosures

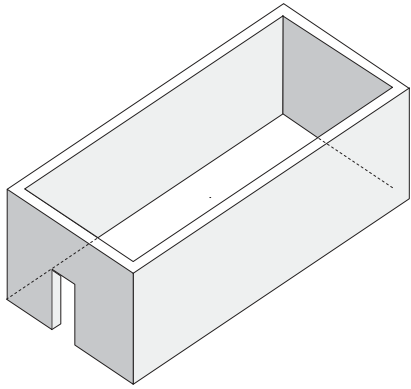
This appliance shall only be used in an above ground, open air situation with natural ventilation, without stagnant areas, where gas leakage and products of combustion are rapidly dispersed by wind and natural convection. Any enclosure in which the appliance is used shall comply with one of the following:



Within a partial enclosure that includes an overhead cover and no more than two walls.

A common example is an outdoor gazebo.



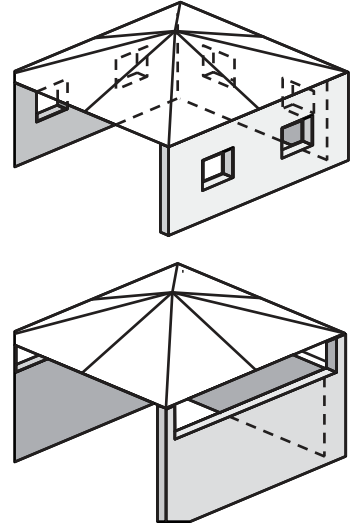


Any enclosure with walls on all sides, but at least one permanent opening at ground level, and no overhead cover. A common example is an enclosed back yard. Typically, the walls are less than 3m high. If they are higher, there is a danger of gas build up.

The appliance may be within a partial enclosure that includes an overhead cover and more than two walls, the following shall apply:

- **At least 25% of the wall are is completely open; and**
- **At least 30% of the remaining wall is open and unrestricted.**

In the case of balconies, at least 20% of the total of the side, back and front wall areas shall be and remain open and unrestricted.



ASSEMBLY INSTRUCTION

Do Not Return Product To Store:

For assistance, please contact the local authorized dealer.

Please have your owner's manual and serial number available for reference.

For Easiest Assembly:

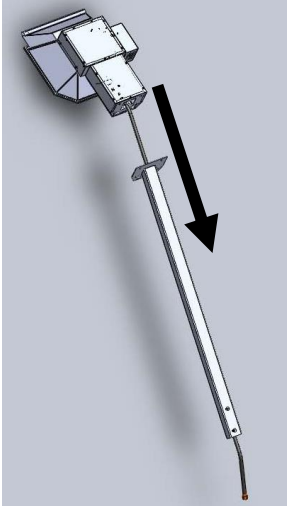
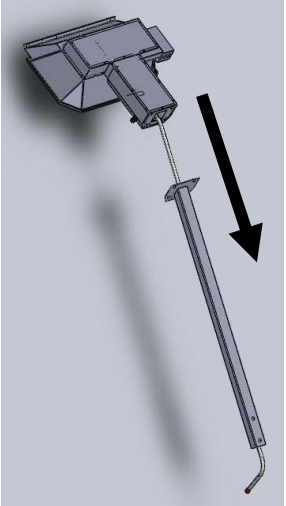
- To avoid losing any small components or hardware, assemble your product on a hard level surface that does not have cracks or openings.
- Clear an area large enough to layout all components and hardware.
- Tighten all hardware connections by hand first. Once the step is completed go back and fully tighten all hardware
- Follow all steps in order to properly assemble your product.
- This appliance shall not be installed or used indoors.

To complete assembly you will need:

- (1) Leak Detection Solution (instructions on how to make solution are included in step Operating Section)
- (1) Precision Filled LP Gas Grill Tank with Acme Type 1 external threaded valve connection (9kg,12kg or 18kg size)

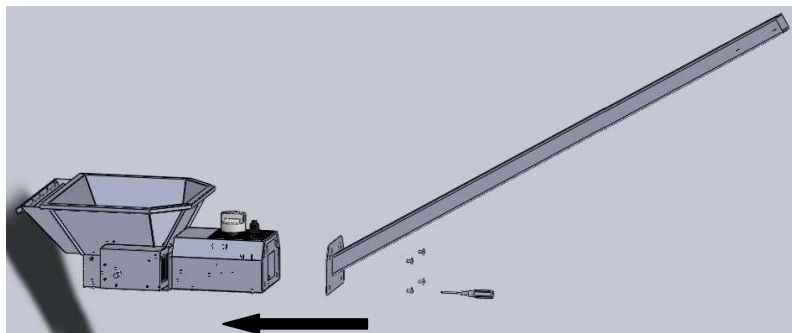
Note: You must follow all steps to properly assemble heater.

Typical assembly: approximately 15 minutes

STEPS	FIGURE DISPLAY
<u>Step 1:</u> Open the base and take out all the parts inside.	
<u>Step 2:</u> Put the gas hose through the SS support.	<div>BPH-100d (BPH-100) </div> <div>BPH-200 </div>

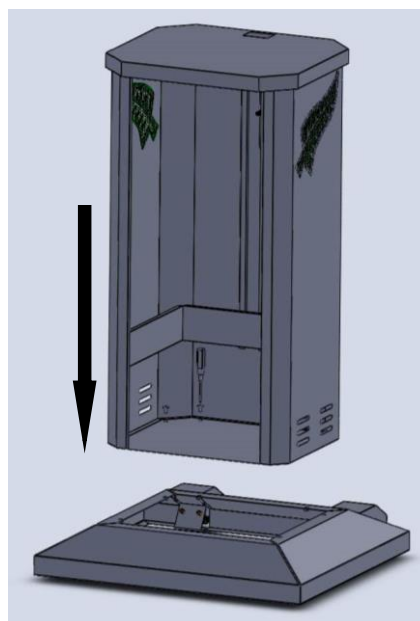
Step 3:

Install the SS support onto the bottom of control box with the screws provided. You will not need any nuts- the screws feed directly into pre-threaded holes on the bottom of control box.



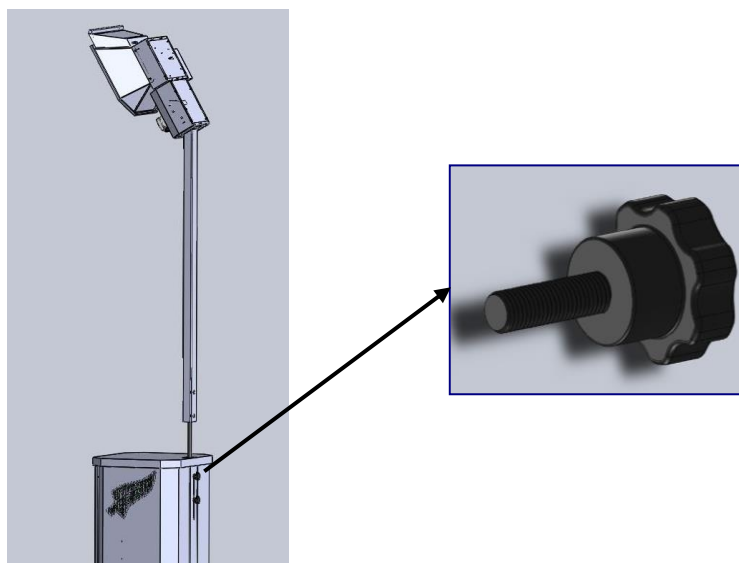
Step 4

Install the Tank Housing onto the base with the hex screws and locking washer provided. You will not need any nuts- the screws feed directly into pre-threaded holes on the base panel. Please use a cross head screws driver to fasten all screws.



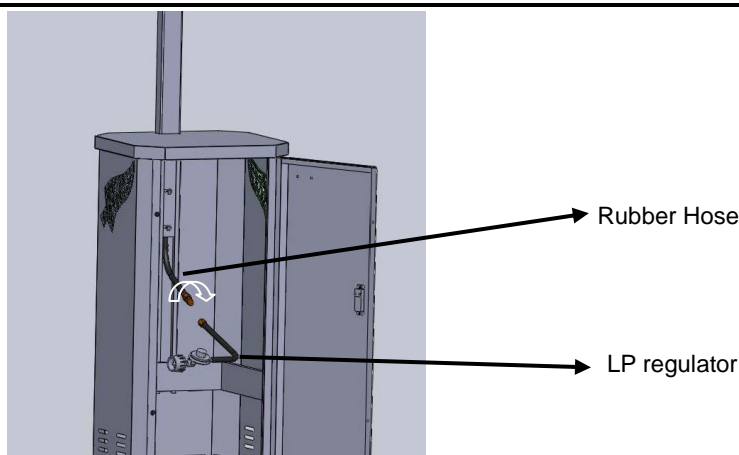
Step 5:

Push the assembled heater head with the SS support into the hole on top of the tank base, fasten with 2 'Star' bolts. You may adjust the height as desired.

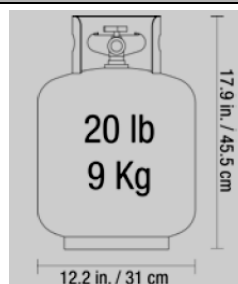


Step 6:

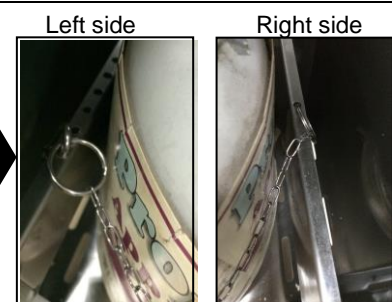
Connect the regulator to the gas hose. Tighten with a wrench.

**Installing LP Gas Tank**

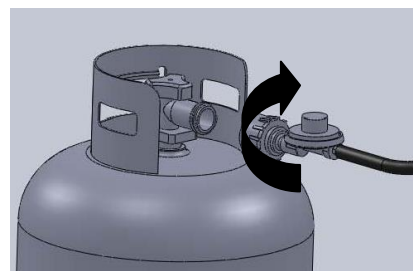
- A** To operate you will need (1) precision –filled standard LP Gas Tank (20lbs.) with external valve threads.
- Note: An empty standard grill LP gas tank weighs approximately 18lbs. A precision-filled standard grill LP gas tank should weigh no more than 38 lbs.



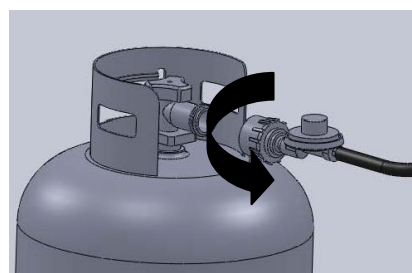
- B** **Insert LP gas tank:**
- Place gas tank upright into the tank base and fix it stable with a rope chain. The fixing hole on the left is used to be adjusted to fix the tank tightly according to the size of tank.



- C** **Connect LP Gas Tank:**
- Before connecting, be sure that there is no debris caught in the head of the LP gas tank, head of the regulator valve or in the head of the burner and burner ports.
- Connect gas line to tank by turning knob clockwise until it stops.



- D** **Disconnect LP Gas Tank**
- Before disconnecting make sure the LP gas tank valve OFF.
- Disconnect gas line to tank by turning knob counterclockwise until it loose.



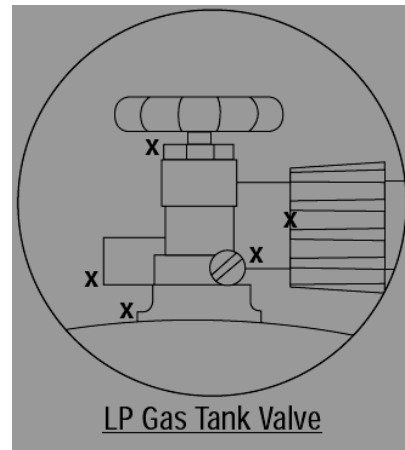
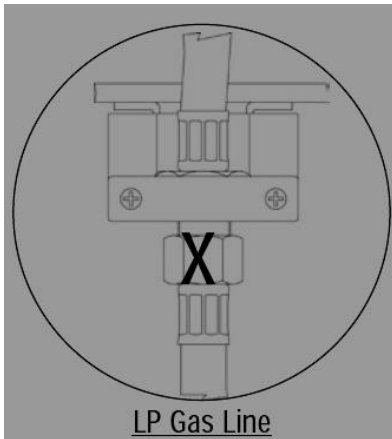
- AFTER ALL THE ABOVE INSTALLATION, DON'T FORGET TO CLOSE THE DOOR OF TANK BASE.

OPERATING INSTRUCTIONS

Checking for leaks

⇒ **WARNING: Failure to inspect the connections or follow these instructions could cause a fire or an explosion which can cause death, serious bodily injury, or damage to property.**

1. Make 2-3 oz. of leak solution by mixing one part liquid dishwashing soap with three parts water.
2. Make sure control knobs are “OFF”.
3. Turn LP gas tank valve to “OPEN”.
4. Spoon leak check solution at all “X” locations
 - a. If any bubbles appear turn LP gas tank valve to “Closed”, reconnect and re-test.
 - b. If you continue to see bubbles after several attempts, turn off LP gas tank and contact us for assistance.
 - c. If no bubbles appear after one minute turn LP gas tank valve to “CLOSED”, wipe away solution and proceed.



Before Lighting

1. Heater should be thoroughly inspected before each use and by a qualified service person at least annually.
2. If relighting, always wait at least 5 minutes.
3. Inspect the hose assembly for evidence of excessive abrasion, cuts, or wear. Suspect 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.

LIGHTING

Note: THE HEATER MUST BE IN 0-80mm POSITION DURING OPERATION.

IMPORTANT NOTE!

The first time connect the gas cylinder after completion of assembly; make sure all appliance control valves are OFF. Take 1 minute to purge the line of air in the pipe before you lighting the heater:

- Turn on the gas cylinder valve;
 - Press in control knob and rotate to pilot;
 - Push the control knob and hold for 1 minute until the gas filled into the pipe.
- Every time you change the gas cylinder, steps above should be followed strictly!

To light heater:

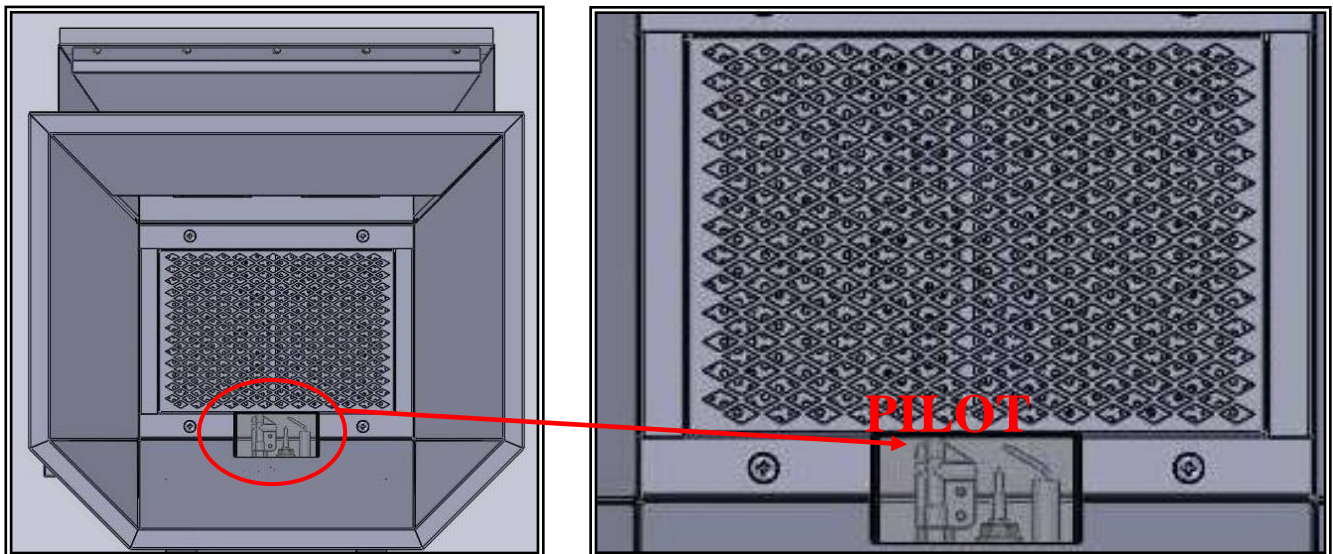
1. Position yourself so that your face is not directly in front of the heater head.
2. Turn control knob on heater head to PILOT.
3. Push control knob and hold then press igniter button until the pilot lit, then turn control knob to HI position.
4. If the burner does not light within 5 seconds, wait for 5 minutes and re-try.

To turn heat off:

Turn control knob inward and turn to OFF position.

Wait 5 minutes before relighting.

For easy storage, remove extension arm cover, lower heater head to base.



When Heater Is 'ON'

The ceramic heater will become bright red due to intense heat. The color is more visible at night.

The heater head should not produce thick black smoke, indicating an obstruction of airflow through the burners.

If excessive black smoke is detected, turn off heater and contact us for assistance.

CLEANING AND CARE

- **CAUTION:** All cleaning and maintenance should be done when radiant heater is cool and with the fuel supply disconnected.
- **CAUTION:** DO NOT clean any heater part in a self cleaning oven. The extreme heat will damage the finish.

Notices

1. Abrasive cleaners will damage this product.
2. Never use oven cleaner to clean any part of heater.
3. Do not clean any heater part in a self cleaning oven. The extreme heat will damage the finish.
4. 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.
5. Spiders and insects can create a dangerous condition that may damage heater or make it unsafe. Keep burner area clean of all spiders, webs, or insects. Clean burner holes by using a heavy-duty pipe cleaner. Compressed air may help clear away smaller particles.
6. Inspect heater before each use.
7. Have heater inspected annually and repairs should be made by a qualified service person.
8. Check heater immediately if any of the following conditions exist:
 - a. The smell of gas in conjunction with extreme black flames from the heater head.
 - b. Heater does not reach proper temperature. Note: At temperatures less than 40°F, heat output will be reduced.
 - c. Heater's glow is excessively uneven.
 - d. Burner makes popping noises during use. Note: A slight pop is normal when burner is extinguished.
9. Carbon deposits may create a fire hazard. Keep top square lid and ceramic infra burner clean at all times.
10. Do not clean heater with combustible or corrosive cleaners. Use warm, soapy water.
11. This heater should be thoroughly cleaned on a regular basis.
12. After a period of storage and/or nonuse, check for leaks, burner obstructions and inspect for any abrasion, wear, cuts to the hose.

Cleaning surfaces

1. Wipe surfaces clean with mild dishwashing detergent or baking soda.
2. For stubborn surfaces use a citrus based degreaser and a nylon scrubbing brush.
3. Rinse clean with water.

Note: 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.

Maintenance

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

1. Keep exterior surfaces clean.
2. Air flow must be unobstructed. Keep controls, burner, and circulating air passageways clean. Signs of possible blockage include:
 - ⇒ Gas odor with extreme black flame.
 - ⇒ Heater does NOT reach the desired temperature.
 - ⇒ Heater glow is excessively uneven.
 - ⇒ Heater makes popping noises.

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 top square cover.

Storage

Between uses:

1. Turn control knob OFF.
2. Disconnect LP source.
3. Store heater upright in an area sheltered from direct contact with inclement weather (such as rain, sleet, hail, snow, dust and debris).
4. 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:

1. Turn Control Knob to “OFF”.
2. Disconnect LP source and move to a secure, well-ventilated location outdoors.
3. Store heater upright in an area sheltered from direct contact with inclement weather (such as rain, sleet, hail, snow, dust and debris).
4. If desired, cover heater to protect exterior surfaces and to help prevent build up in air passages.
5. Never leave LP tank exposed to direct sunlight or excessive heat.

Note: Wait until heater is cool before covering.

HEATING FEATURES

- 1) Specially crafted side leaner panels for patrons
- 2) Made from stainless steel and height adjustable
- 3) Stylish yet sturdy design
- 4) Electronic ignition for easy start
- 5) Highly efficient radiant heat gas burner with ceramic tiles
- 6) Heats objects and not empty spaces
- 7) Solid nylon wheels making it easy to move on most surfaces
- 8) Operates on a 9kg,12kg or 18kg LPG gas bottle

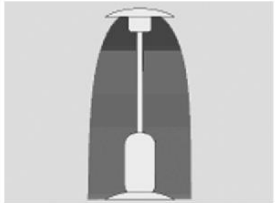
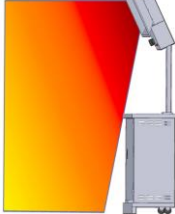
BENEFITS

- 1) Outdoor radiant gas heaters have low emission output
- 2) Environmentally friendly
- 3) Approximately 4 times more cost effective than standard outdoor gas heaters
- 4) Saves time and money

SPECIFICATIONS

Model Number	BPH-100d (BPH-100)	BPH-200
Usage	For residential and medium space use	For residential and medium space use
Gas	ULPG/PROPANE	ULPG/PROPANE
Total Height	2245mm Max	2375mm Max
Burner Design	2 Ceramic burner	4 Ceramic burner
Burner Size	195x136mm	389x136mm
Heating Surface cover Design	Stainless wire mesh protector	Stainless wire mesh protector
Ignite System	Reliable electronic igniter, with pilot and auto safety shut down controller	Reliable electronic igniter, with pilot and auto safety shut down controller
SUS Square Tube Post	60mm x 40mm x 977mm long	60x40mm x 1190mm long
Height Adjustable Range	from 0~80mm adjustable	from 0~80mm adjustable
Heater Base Size	465x405x896mm (without bottom pedestal)	465x405x896mm (without bottom pedestal)
Base Locking pattern	Push-to-Release locker	Push-to-Release locker
Wheels	Heavy Duty wheels	Heavy Duty wheels

PATIO HEATER V.S. RADIANT HEATER

SPECIFICATIONS	STANDARD PATIO HEATER	BUFFALO OUTDOOR RADIANT HEATER
Heater	Atmospheric gas burner	Highly efficient 2or4 x ceramic infra-red heater
Heat Direction	Downward reflection	Angled wide radiant heat coverage
Heat Direction Image		
Heater location	Middle of entertaining areas	Side location, out of the way
Gas Safety Features	Tilt and strong wind cut off	Tilt and strong wind cut off
Fuel	LPG	LPG
Need to Fill Bottle	Approx every 12 hours	Approx every 36 hours
Gas Bottle Size	9kg only	9kg, 12kg or 18kg
Running costs	Approx \$1.80 - \$2.00 per hour*	Approx \$0.24 - \$0.50 per hour*

Additional benefits	-----	<ul style="list-style-type: none"> • Positioned out of high traffic areas • Extra table top • Large cost savings • Lower emissions per hour used • Looks great
----------------------------	-------	---

TROUBLESHOOTING

If the problem is:	And this condition exists:	Then do this
Burner won't light Note: Heater operates at reduced efficiency below 5°C (40°F)	Tank valve is closed	Open valve
	Blockage in orifice	Clean or replace orifice
	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 tank valve fully open	Turn tank valve "OFF" and replace tank
	Igniter fails	Use match to light; obtain new igniter and replace.
Fire flame won't stay lit	Connection between gas valve and tank is loose	Tighten connection and perform leak check
	Thermocouple is not operating correctly	Replace thermocouple
Lower efficient radiant heat from the ceramic gas burner	Gas pressure is low	Turn tank valve "OFF" and replace tank
	Outdoor temperature is less than 5°C (40°F) and tank is less than 1/4 full	Use a full tank
	Supply hose is bent or kinked	Straighten hose
	Control knob fully "ON"	Check burner and orifices for blockage
Radiant heating burner glows uneven	Gas pressure is low	Turn tank valve "OFF" and replace tank
	Base is not on a level surface	Place heater on a level surface
	Heater is level	Clean burner
Carbon build-up	Dirt or film on reflector and emitter	Clean reflector and radiant heating burner assemble.
Thick black smoke	Blockage in burner	Remove blockage and clean burner inside and outside.
Pilot or main burner will not light	<ul style="list-style-type: none"> ◆ Air in gas line ◆ Blockage in gas line ◆ Igniter not sparking 	Purge gas line Trace back and clear Repair lead, electrode, piezo Replace battery

	<ul style="list-style-type: none"> ◆ Cylinder turned off ◆ Cylinder empty 	Turn on Install full cylinder
Main burner will not light fully	<ul style="list-style-type: none"> ◆ Poor gas supply ◆ Gas control inoperative ◆ Insufficient gas 	Trace supply back to source where necessary Inspect valve, rectify Install full cylinder/rectify gas supply
Flame is yellow	<ul style="list-style-type: none"> ◆ Check injector ◆ Check gas pressure ◆ Check venture for dust ◆ Check burner ports for blockage 	Clean if necessary Adjust as required Clean if necessary Clean if necessary
FOR MORE ASSISTANCE, PLEASE CONTACT THE LOCAL AUTHORIZED DEALER!		

LIMITED WARRANTY

Hauland Limited (Vendor) Warrants to the original retail purchaser of this product, and to no other person, that if this product is assembled and operated in accordance with the printed instructions accompanying it, then for a period of two (2) years from the date of purchase, all parts in such product shall be free from defects in material and workmanship and 10 years warranty on stainless steel body. Vendor may require reasonable proof of your date of purchase. Therefore, you should retain your sales slip or invoice. This Limited Warranty shall be limited to the repair or replacement of parts, which prove defective under normal use and service and which Vendor shall determine in its reasonable discretion upon examination to be defective. Before returning any parts, you should contact Vendor's Customer Service using the contact information listed below. If Vendor confirms, after examination, a defect covered by this Limited Warranty in any returned part, and if Vendor approves the claim, Vendor will replace such defective part without charge. If you return defective parts, transportation charges must be prepaid by you. Vendor will return replacement parts to the original retail purchaser, freight or postage prepaid.

This Limited Warranty does not cover any failures or operating difficulties due to accident, abuse, misuse, alteration, misapplication, improper installation or improper maintenance or service by you or any third party, or failure to perform normal and routine maintenance on the product as set out in this owner's manual. In addition, the Limited Warranty does not cover damage to the finish, such as scratches, dents, discoloration, rust or other weather damage, after purchase.

This Limited Warranty is in lieu of all other express warranties. Vendor disclaims all warranties for products that are purchased from sellers other than authorized retailers or distributors, including the warranty of merchantability or the warranty of fitness for a particular purpose. **VENDOR ALSO DISCLAIMS AND ANY ALL IMPLIED**

WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. VENDOR SHALL NO LIABILITY TO PURCHASER OR ANY THIRD PARTY FOR ANY SPECIAL, INDIRECT, PUNITIVE, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. Vendor further disclaims any implied or express warranty of, and assumes no responsibility for, defects in workmanship caused by third parties.

This Limited Warranty gives the purchaser specific legal rights; a purchaser may have other rights depending upon where he or she lives. Some jurisdictions do not allow the exclusion or limitation of special, incidental or consequential damages, or limitation on how long a warranty lasts, so the above exclusion and limitations may not apply to everyone.

Vendor does not authorize any person or company to assume for it any other obligation or liability in connection with the sale, installation, use, removal, return, or replacement of its equipment, and no such representations are binding on vendor.

FOR CUSTOMER REFERENCE

(File in a safe place)

Purchased from _____

Date Purchased _____

Serial No. _____

Sales docket must be kept as proof of purchase date

FOR MORE INFORMATION

Need more information or assistance in any way? Please visit our website at:

www.hauland.co.nz

Or send Email to us:

info@hauland.co.nz