

# INSTRUCTIONS FOR USE AND ASSEMBLY



LPGSASA PERMIT NUMBER 1051-XX-RSA-12-A

## Flame Heater

**Model: 16/DK1023A**



### WARNING

**HAZARDOUS FIRE OR EXPLOSION MAY RESULT IF INSTRUCTIONS ARE IGNORED.**

It is the consumer's responsibility to see that the heater 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.

### PRECAUTIONS

- Leak test all connections after each tank refill.
- Never check for leaks with a match or open flame.
- Do not store or use gasoline or other flammable vapours and liquids in the vicinity of this or any other appliance.
- Any LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

### FOR YOUR SAFETY

**IF YOU SMELL GAS:**

- Turn off gas supply at bottle.
- Extinguish all naked flames;
- Do not operate any electrical appliances.
- Ventilate the area.
- Check for leaks as detailed in this manual.
- If odour persists, contact your dealer or gas supplier immediately.

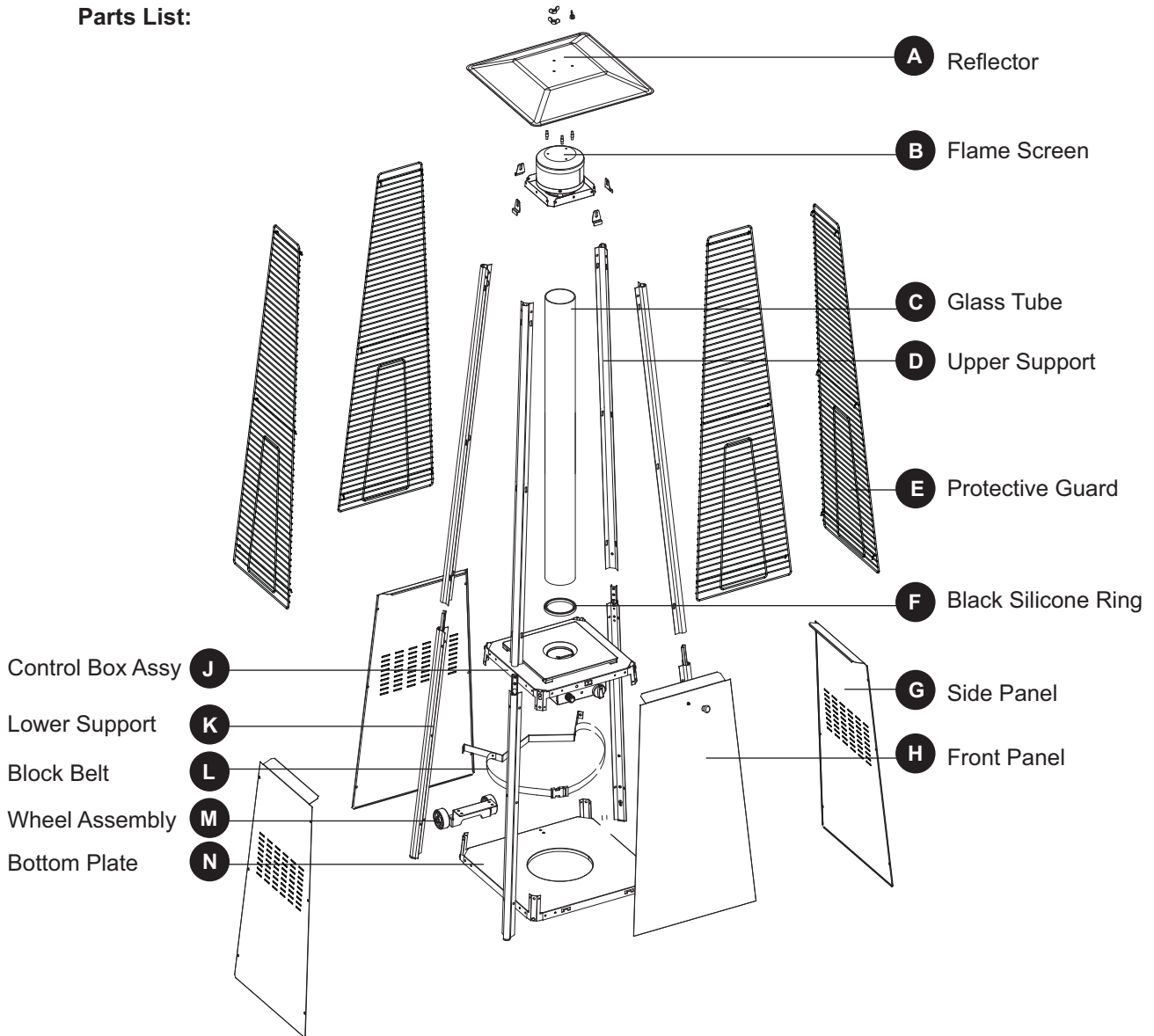
### **For Outdoor Use Only**

**Important: Read these instructions for use carefully so as to familiarise yourself with the appliance before connecting it to its gas container. It is also important to follow the assembly instructions. Keep these instructions for future reference**

# ASSEMBLY PARTS - 1

Please check parts against the list below before assembling your Flame Heater. Take a few moments to familiarise yourself with the contents. Check that all holes are clear of paint before assembly

## Parts List:

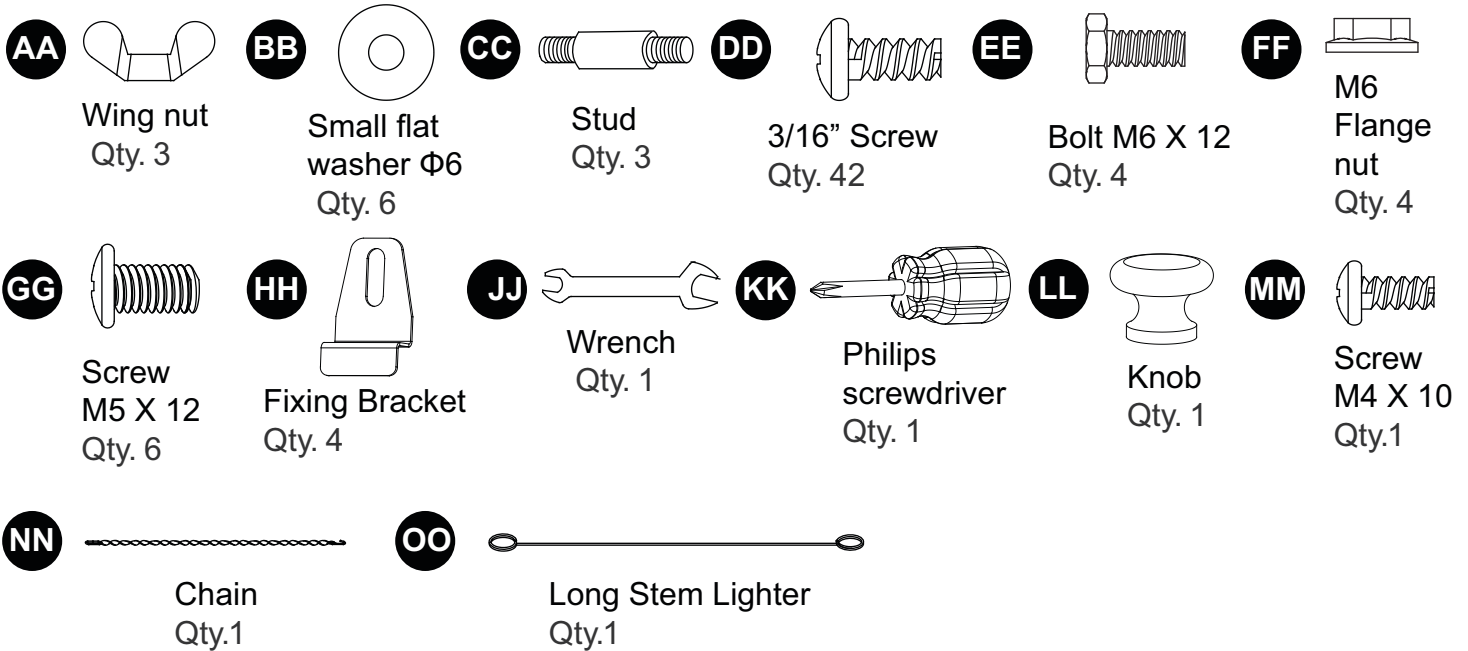


PART	DESCRIPTION	QUANTITY
A	Reflector	1
B	Flame Screen	1
C	Glass Tube	1
D	Upper Support	4
E	Protective Guard	4
F	Black Silicone Ring	1
G	Side Panel	3
H	Front Panel	1
J	Control Box Assy	1
K	Lower Support	4

PART	DESCRIPTION	QUANTITY
L	Block Belt	1
M	Wheel Assembly	1
N	Bottom Plate	1

# ASSEMBLY PARTS - 2

HARDWARE CONTENTS (shown actual size)



## Assembly Instructions



Whilst every effort has been made in the manufacture of your barbecue to remove any sharp edge, you should handle all components with care to avoid accidental injury.

Tools required: Either a Phillips crosshead or flat-bladed screwdriver and either an adjustable spanner or a pair of pliers.

### For Best Results:

First please prepare for tools needed such as:



Then remove all contents from packaging, and make sure all parts are present before attempting to assemble! Tighten all bolt connections by hand first, then when the flame heater is fully assembled, go back and tighten.

### Before Assembly:

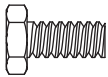

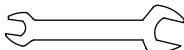
Please read all instructions thoroughly before proceeding. Find a large, clean area in which to assemble your flame heater. Please refer to the parts list and assembly diagrams as necessary.

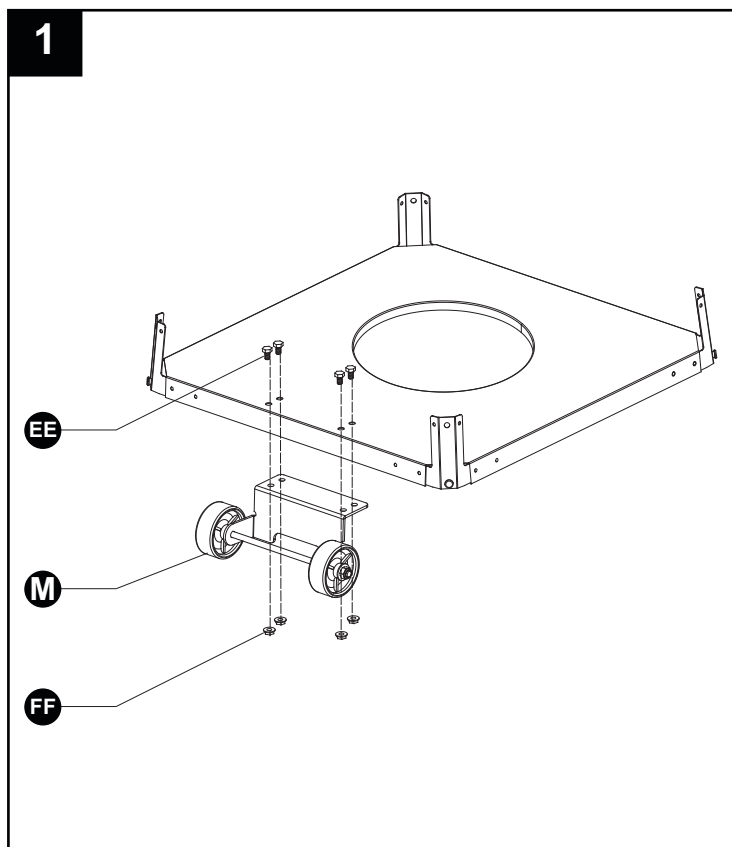
Assembly of the flame heater involves many large components, it is advisable to have two people assemble the unit.

## ASSEMBLY PROCEDURES

1. Assemble the wheel assembly to the bottom plate. Fix the wheel assembly to the bottom plate using 4pcs bolt M6X12 and 4pcs flange nut M6.

### Hardware Used

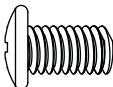
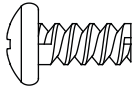
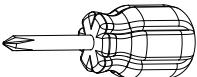
<b>EE</b>	Bolt M6 X 12		x 4
<b>FF</b>	M6 Flange nut		x 4
<b>JJ</b>	Wrench		x 1

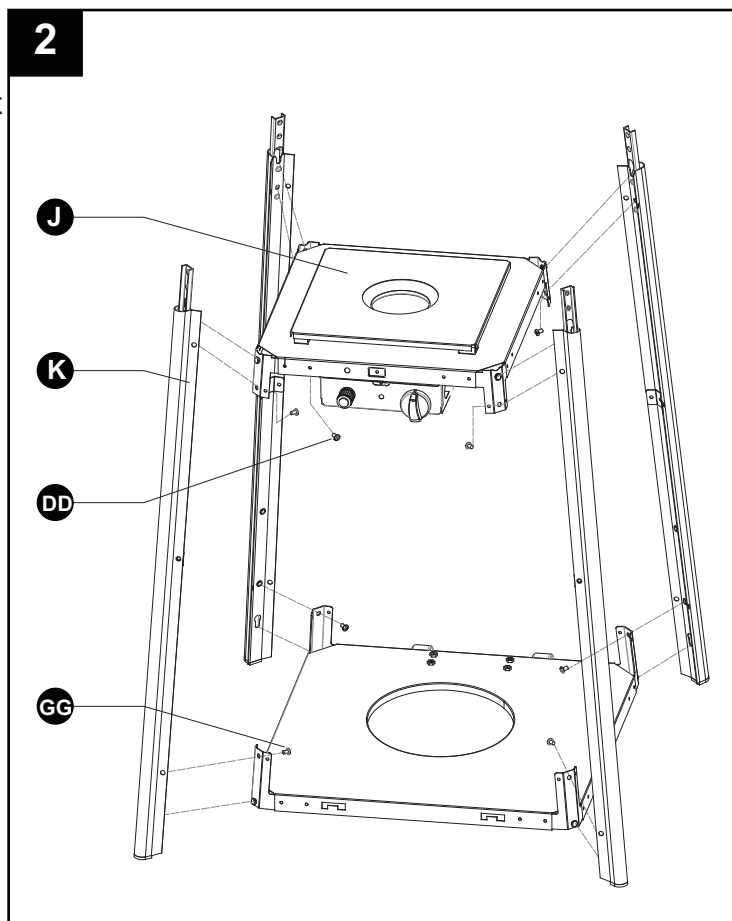


2. Insert the pins of the base to the holes of lower support, press to secure the pins. Using 4pcs screw M5x12 to secure the lower support and base.

Insert the pins of the control box assy to the holes of upper support, press to secure the pins. Using 4pcs screw 3/16" screw to secure the upper support and control box assy.

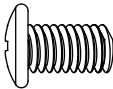
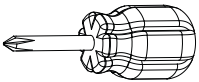
### Hardware Used

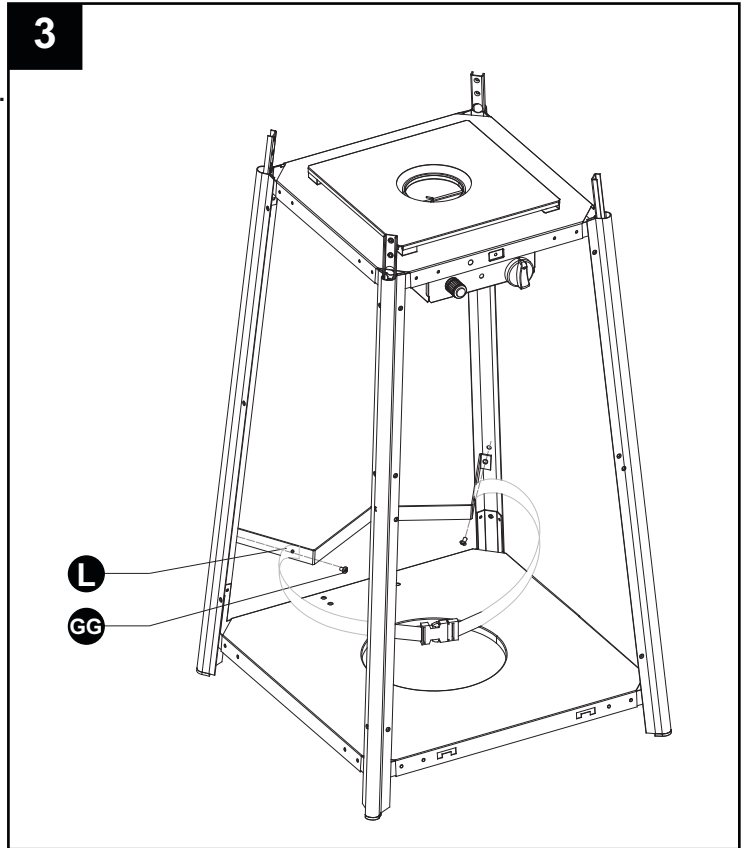
<b>GG</b>	Screw M5 X 12		x 4
<b>DD</b>	3/16" Screw		x 4
<b>KK</b>	Philips screwdriver		x 1



3. Assemble block belt.  
 Fix the block belt to the 2pcs of lower support behind the front door, using 2pcs screw M5X12.


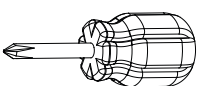
**Hardware Used**

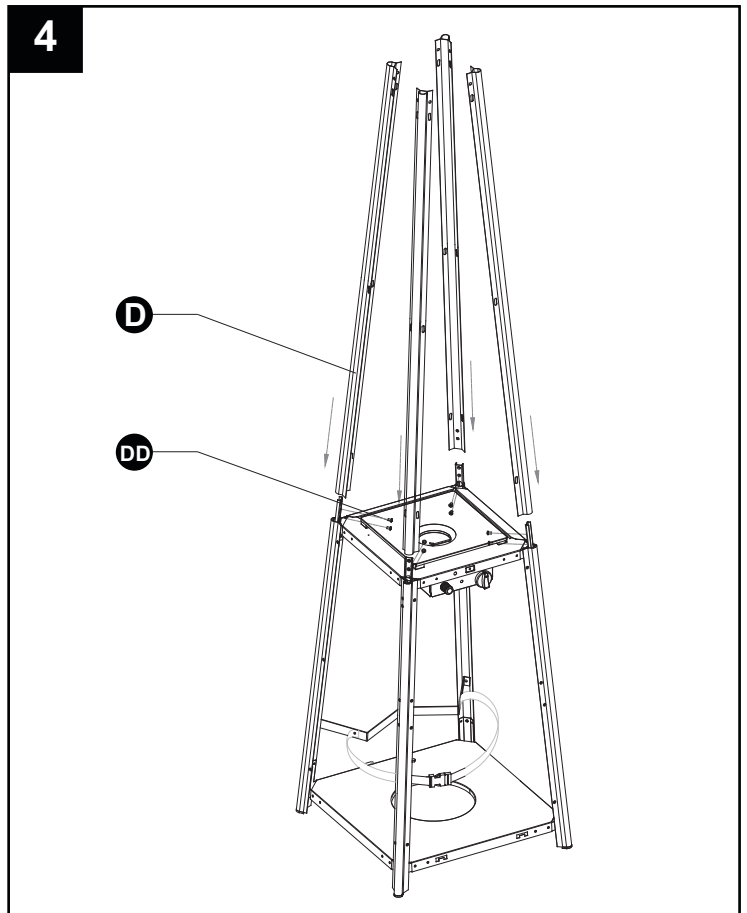
- GG** Screw M5 X 12  x 2
- KK** Philips screwdriver  x 1



4. Assemble the middle support.  
 Insert the 4pcs upper support to the lower support. Secure them with 8pcs screw 3/16”.


**Hardware Used**

- DD** 3/16” Screw  x 8
- KK** Philips screwdriver  x 1

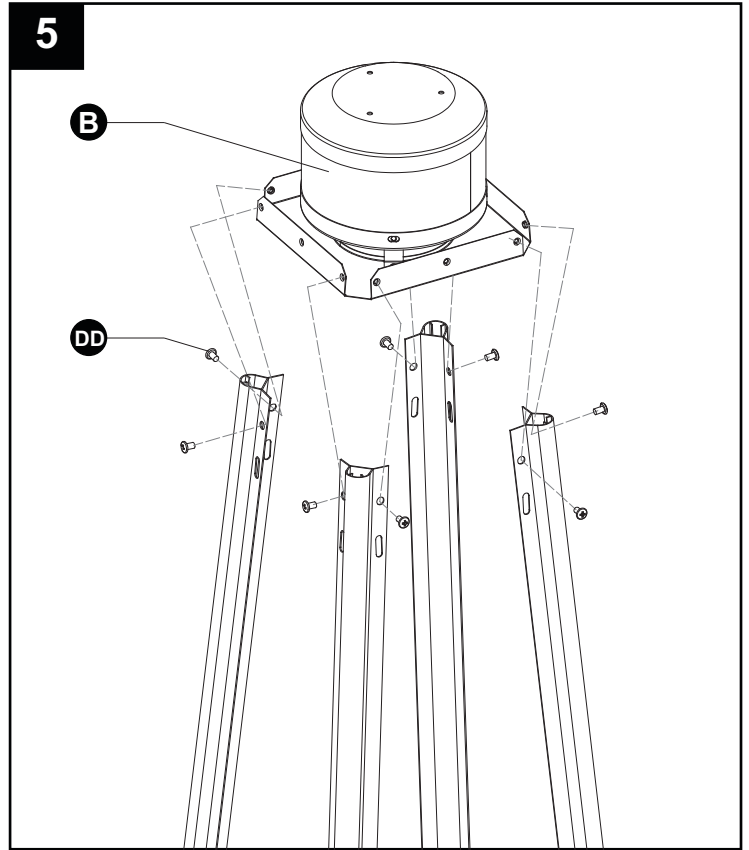


5. Assemble the flame screen to the upper support.  
Secure the flame screen to the upper support using 8pcs screw 3/16”.

**Hardware Used**

**DD** 3/16” Screw  x 8

**KK** Philips screwdriver  x 1




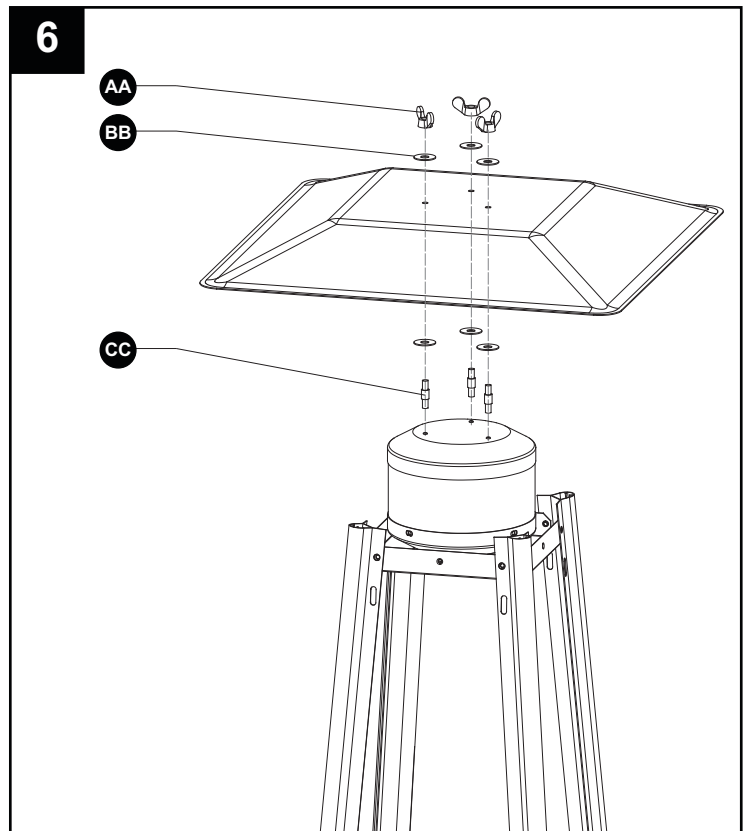
6. Assemble the reflector onto the flame screen.  
Screw the 3pcs stud on the flame screen, put 3pcs washer  $\Phi 6$  onto the top of stud, then put the reflector onto the stud, secure them with 3pcs washer  $\Phi 6$  and 3pcs wing nut.

**Hardware Used**

**AA** Wing nut  x 3

**BB** Washer  $\Phi 6$   x 6

**CC** Stud  x 3




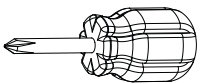

7. Carefully install the glass tube by lifting up and inserting through the center hole in the upper plate. Ensure the black silicone ring is attached to the lower edge of the glass tube as illustrated. Slide the glass tube through the hole of the lower plate cover and onto the middle plate. Check and ensure that the glass tube is positioned properly and is completely covering the center hole of the middle plate.

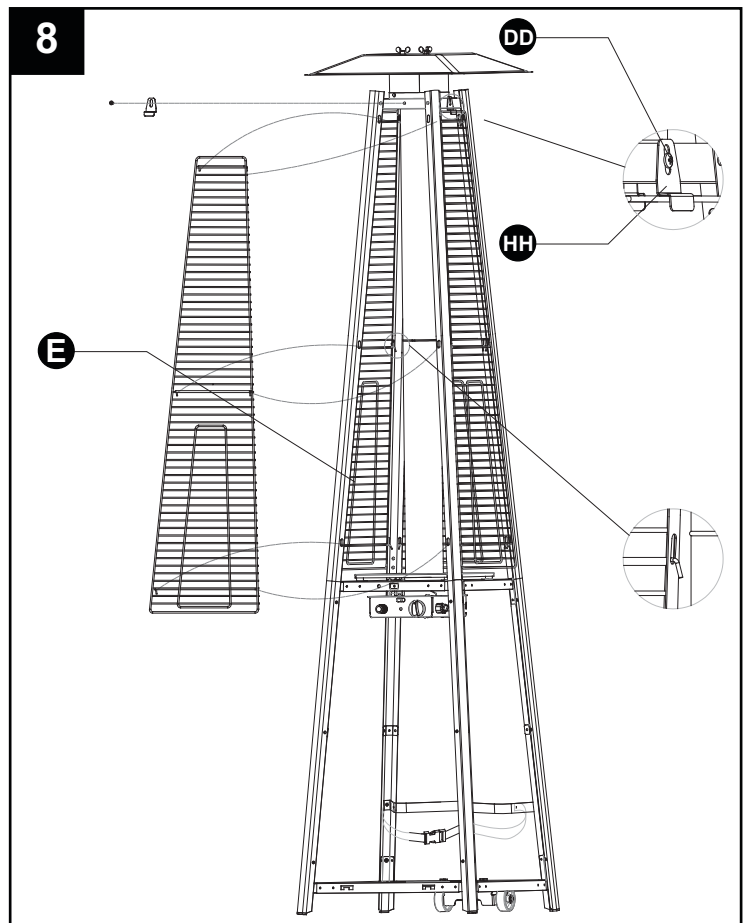
**WARNING! The black silicone ring must be in place prior to operating the heater.**



8. Assembly the protective guard. Hang the hooks of the protective guard onto the holes in supports. Secure the protective guards with fixing brackets with 4pcs 3/16" screws.

**Hardware Used**

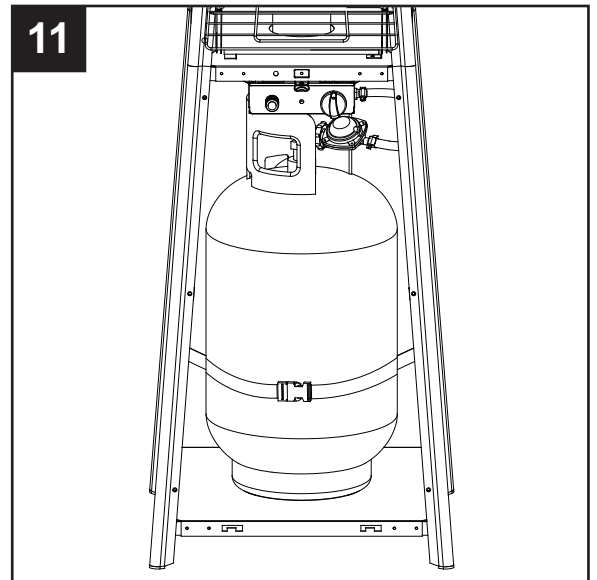
- |           |                     |   |     |
|-----------|---------------------|---|-----|
| <b>DD</b> | 3/16" Screw         |  | x 4 |
| <b>KK</b> | Philips screwdriver |  | x 1 |
| <b>HH</b> | Fixing Bracket      |  | x 4 |



11. LPG Hose Connection.

**!** **WARNING!** Ensure the hose does not contact any high temperature surfaces, or it may melt and leak causing a fire.

After the cylinder is placed inside the heater, secure the cylinder with block belt tightly.



12. Leak Check.



**WARNING!** A leak test must be performed annually and each time a cylinder is connected or if a part of the gas system is replaced.



**WARNING!** Never use an open flame to check for gas leaks. Be certain no sparks or open flames are in the area while you check for leaks. Sparks or open flames will result in a fire or explosion, damage to property, serious bodily injury, or death.



**Leak testing:** This must be done before initial use, annually, and whenever any gas components are replaced or serviced. Do not smoke while performing this test, and remove all sources of ignition. See Leak Testing Diagram for areas to check. Turn all burner controls to the off position. Turn gas supply valve on.

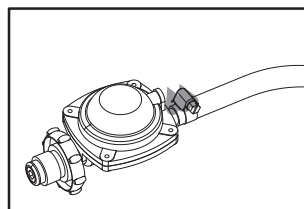


Brush a half-and-half solution of liquid soap and water onto all joints and connections of the regulator, hose, manifolds and valves.

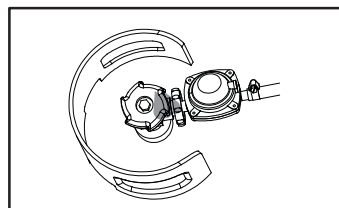


Bubbles will indicate a gas leak. Either tighten the loose joint or have the part replaced with one recommended by the Customer Care department and have the patio heater inspected by a qualified gas technician.

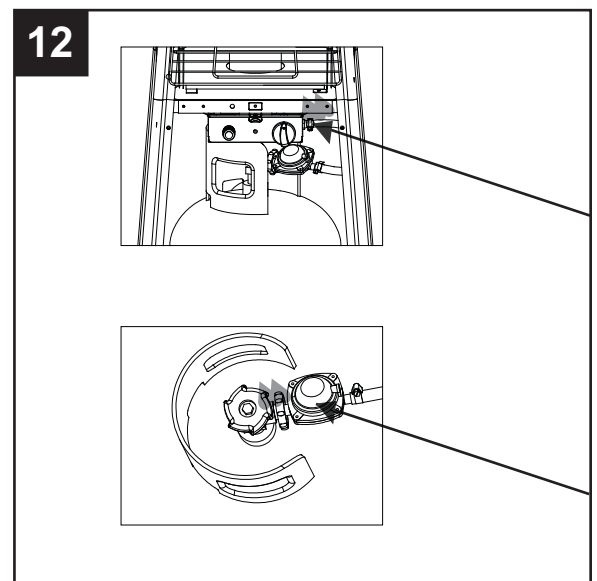
If the leak cannot be stopped, **immediately shut off the gas supply**, disconnect the cylinder, and have the patio inspected by a certified gas installer or dealer. Do not use the patio heater until the leak has been corrected.



Hose / Regulator connection



Regulator / Cylinder connection





## **PRECAUTIONS**

Installation and services should only be done by a qualified person.

Do not use the heater in an explosive atmosphere.

Before use, check the hose.

Disconnect LPG cylinder before moving the heater.

Do not attempt to alter any parts of the heater.

Example: Using the heater without reflector or protection guard.

The appliance shall not be used in basements or below ground level.

It must always be placed on a solid and level surface.

Never replace or substitute the regulator use only that one is suitable both appliance category and normal gas pressure

The LPG gas cylinder valve should be turned off when the heater is not in use.

Don't use the heater when it is raining, and do not let any liquid splash to the glass tube when the heater is

Do not paint protection guard, control box or reflector.

Keep the children away from the heater, always be carefully not to knock down the heater, which will break the glass tube and might cause injury.

Do not move the appliance when in operation.

After a long break of operation, the gas parts in the control box of the heater and the hose should be inspected for spiders, spider webs or other insects.

Check the heater immediately if any of the following exists:

1. There is smell of gas.
2. The heater is not enough effective.
3. The burner makes popping noise during use (a slight popping noise is normal when the burner is extinguished after use).

If you smell gas, turn off the valve immediately. If smell persists, contact the dealer or gas supplier immediately.

The hose with regulator assembly shall be stored in a safe place to avoid its accidental damage.

Children and adults should be aware of the high surface temperature hazard, and should keep a safe distance away to avoid clothes burning or igniting.

Young children should be carefully supervised when they are in the working area of the heater.

Clothing or other flammable material should not be hung from the heater, or placed on or near the heater.

Do not obstruct the flow of combustion products.

Keep the ventilation opening of the cylinder enclosure free and clear of debris.

Do not obstruct the ventilation holes of the cylinder housing.

Shut off the valve of gas cylinder or the regulator before moving the appliance.

The tubing or the flexible hose must be changed within the prescribed intervals.

Use only the type of gas and the type of cylinder specified by the manufacturer.

In case of violent wind particular attention must be taken against tilting of the appliance.

## **APPLIANCE STAND AND LOCATION**

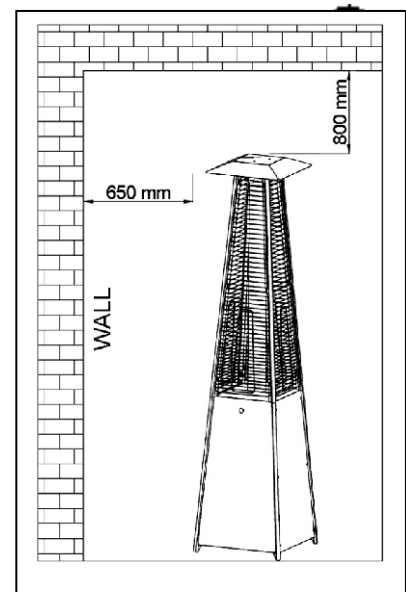
The appliance is for outdoor use only. Do not use indoors or in an enclosed area.

Always maintain proper clearance from combustible materials, i.e. top 800mm and sides 650mm minimum

## **BURN-BACK (FIRE IN BURNER TUBE OR CHAMBER)**

In the event of a burn-back, where the flame burns back to the jet, immediately turn off the gas supply at the control valve on the panel.

After ensuring the flame is extinguished, re-light the appliance in the normal manner. Should the appliance again burn back, close the control valve and call a service technician. Do not use the appliance again until the service technician has declared that it is safe to do so.



## **INSTALLATION**

Important safety requirements:

**THIS APPLIANCE OUTDOOR USE ONLY**

1. This appliance shall not be installed or used indoors, in buildings, garages or any other enclosed area.
2. DO NOT place articles on or against this appliance.
3. DO NOT use or store flammable materials near this appliance.
4. DO NOT operate this appliance unless it is fully assembled with reflector and protection guard in place.
5. Installation and repair should be done by a qualified service person. The appliance must be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative that control compartment, burners and circulating air passages of the heater and light be kept clean.

## **OPERATION:**

### **PREPARATION:**

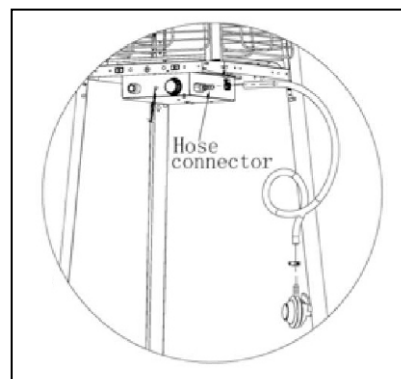
You will need to purchase an LPG cylinder

You need a suitable size LPG cylinder that can be installed to the compartment.

You have to use pressure regulator with an outlet pressure complying with the appliance category. The flexible tube must be approved also.

Connect the hose to the hose connector in the control box

Warning: Always test the hose for leaks with soapy water at both ends.



### **WARNING:**

Never use the heater while it is raining, the glass tube would break when it suddenly met water.

Always turn off the heater while there is a rain.

Never splash any liquid to the glass tube when the heater is working

The glass tube will be extremely hot when it is working, never try to touch it and keep the children away from the heater.

Always ensure the heater stands firmly, the glass tube may break if the heater was falls down onto ground.

Never use the heater if the glass tube has any cracks

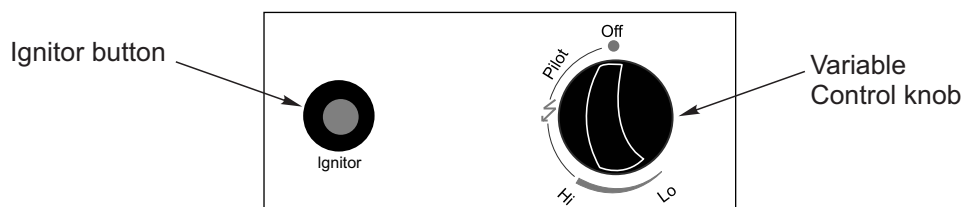
### **To Turn On The Heater**

1. Open the cylinder control valve 1½ turns in an anti clockwise direction
2. Press and turn the variable control knob on the heater to the PILOT position (90° in an anti- clockwise direction).
3. Whilst in the Pilot position press in the variable control knob and hold in that position for 30 secs. Whilst holding the knob in the pressed in position press the ignitor button several times until the pilot flame ignites.

Note:

- If a new cylinder has just been connected to the heater please allow 60 seconds for the air in the gas hose to purge out of the pilot jet before pressing the ignitor button.
- It is important to hold in the control knob when pressing the ignitor button.
- If the plot flame does not ignite repeat step 3 above.

4. After the pilot flame ignites turn the variable control knob to the maximum position and leave in that position for 5 mins. or more before turning the control knob to the desired temperature setting



### **To Turn off the Heater**

1. Turn the variable control knob to the PILOT position.
2. Press and turn the variable control knob to the OFF position
3. Turn the cylinder control valve to the closed position in a clockwise direction.

# CLEANING/MAINTENANCE/STORAGE:

## CLEANING AND MAINTENANCE:

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

Keep exterior surfaces clean.

-Use warm soapy water for cleaning. Never use flammable, corrosive or abrasive cleaners.

-While washing your unit, be sure to keep the area around the burner and pilot assembly dry at all time.

If the gas control is exposed to water in any way, do NOT try to use it. It must be replaced.

After a long break from operation, the unit should be inspected for spiders, spider webs or other insects.

Air flow must be unobstructed. Keep controls. Burner and circulating air passageways clean.

Signs of possible blockage include:

-Gas odour with extreme yellow tipping of flame.

-Heater does NOT reach the desired temperature.

-Heater glow is excessively uneven.

-Heater makes popping noises.

Spider 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 reflector and glass tube inside with soapy water if any carbon deposits develop. Always be careful when cleaning the glass tube.

## STORAGE:

### **Between uses:**

Turn the control knob to "OFF" position.

Turn LPG cylinder to "OFF" position.

Store heater upright in an area sheltered away from weather conditions (such as rain, sleet, hail, snow).

If desired, cover heater to protect exterior surfaces and to help prevent dust and debris collecting in air passages.

### **During periods of extended inactivity or when transporting:**

Turn the control knob to "OFF" position.

Disconnect LPG Cylinder and move to a secure, well-ventilated location outdoors.

DO NOT store in a location that will exceed 50 degrees C.

Store heater upright in an area sheltered away from weather conditions (such as rain, sleet, hail, snow).

If desired, cover heater to protect exterior surfaces and to help prevent dust and debris collecting in air passages.

### **WARNING**

#### **FOR YOUR SAFETY**

Do not touch or move the heater for at least 45 mins. after use.

Allow all burner elements to cool before touching.

### **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.

Wait until heater is cool before covering

## F. Technical specifications

Name	<b>TOTAL</b>
Model	<b>16/DK1023A</b>
Heat Output	<b>11.0 KW</b>
Gas Types	<b>LPG</b>
Injector Size	<b>Ø 1.70mm x 1</b>
Operating Pressure	<b>2.8 kPa</b>
Gas Consumption (at Max )	<b>800 g/h</b>

### NOTE:

**GAS-PRESSURE REGULATOR—This appliance is designed to operate on a gas pressure of 2,8 kPa. A suitable regulator that complies with the requirements of SANS 1237 must be used with this appliance**

Hose to be in compliance with SANS 1156-2 or BS 3212. Regulator and hose supplied

### TAMPERING:

Under no circumstances are you allowed to tamper with the jet sizes or modify anything on the appliance. Not only is it dangerous , it will also nullify your warranty

**FOR OUTDOOR USE ONLY.**

Specifications are subject to change without prior notice.

## G. Troubleshooting

PROBLEM	PROBABLE CAUSE	SOLUTION
<b>Pilot will not light</b>	Gas valve may be OFF	Turn the gas valve ON
	LPG cylinder empty	Refill LPG cylinder
	Orifice blocked	Clean or replace Orifice
	Air in supply system	Purge air from lines
	Loose connection	Check all fittings
<b>Pilot will not stay on</b>	Debris around pilot	Clean dirty area
	Loose connection	Tighten connection .
	Thermocouple bad	Replace Thermocouple
	Gas leak in line	Check connections
	Lack of gas pressure	LPG cylinder is near empty
<b>Burner will not light</b>	Gas pressure is low	LPG cylinder is near empty
	Orifice blocked	Remove, clean and replace
	Control knob not ON	Turn knob to ON .
	Thermocouple bad	Replace Thermocouple
	Pilot light assembly bent or not in correct location .	Place pilot light in correct Position and retry

**Any repairs to the patio heater must be carried out by a qualified person**