



Natural Gas Patio Heater Series

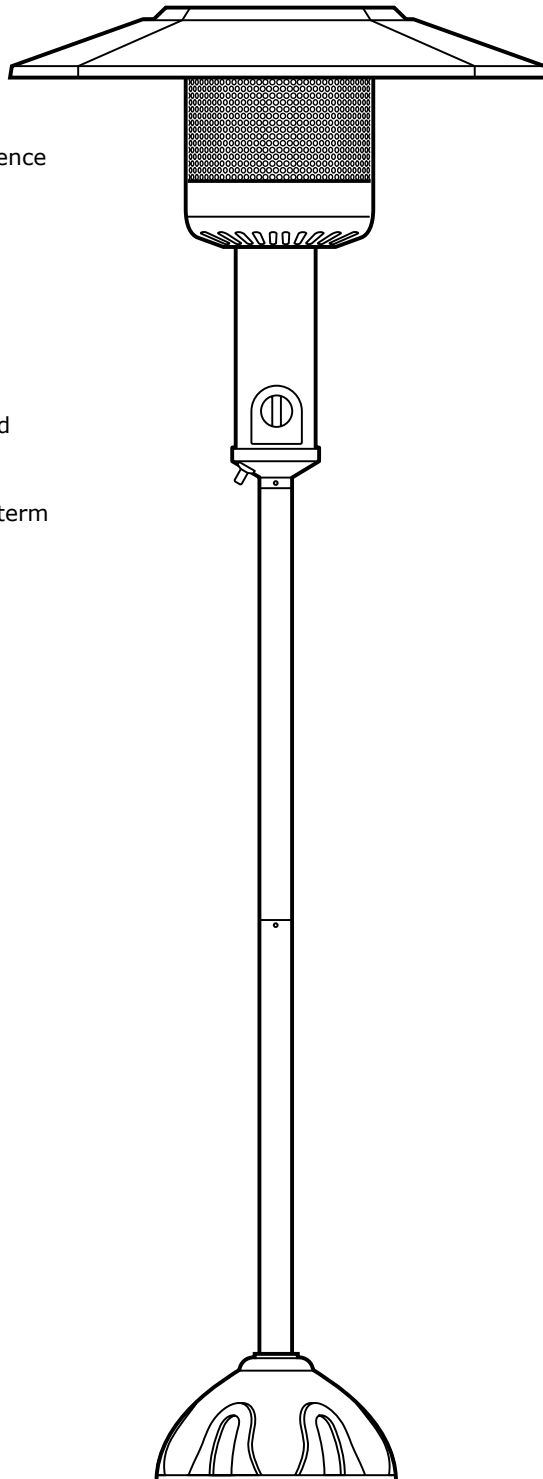
Model No. NG1P45, NG2P45, NGW45 & NGH45

FEATURES:

- The ideal solution for extending the season for outdoor entertaining
- Creates a stylish and attractive ambience
- Casts an approximate 3 to 5 metre circle of radiant sun-like warmth
- Piezo ignition
- Adjustable heat output
- Flame safeguard system for enhanced safety
- Stainless steel burner for extra long-term reliability
- Durable and weather resistant
- Sectional reflector
- Efficient & powerful output
- AGA approved

NOTE TO INSTALLER:

TEST OPERATION OF APPLIANCE BEFORE LEAVING.



FOR YOUR SAFETY

If you smell gas:

1. Shut off the gas to the appliance.
2. Extinguish any open flame.
3. If odour continues, immediately call your gas supplier.

Do not store or use gasoline or other flammable vapour and liquids in the vicinity of this or any other appliance.

WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage.

Read the instructions thoroughly before installing or servicing this equipment.

THIS APPLIANCE MUST NOT BE INSTALLED OR USED INDOORS.

NATURAL GAS APPLIANCE. TO BE INSTALLED ONLY BY AN AUTHORISED PERSON.

THE AUTHORISED PERSON WILL PROVIDE A CERTIFICATE OF COMPLIANCE.

Special warranty conditions apply

Important: The installer or seller must leave these instructions with the consumer.

Installation, Operation and Maintenance Instructions

Important Safety Rules:

This appliance must only be used in a well ventilated area.

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. Children and adults should be alerted to the hazards of high surface temperatures, burns and clothing ignition.
5. Children should be carefully supervised when they are in the area of the appliance.
6. **NEVER** hang anything including clothes or other flammable items on the appliance.
7. **DO NOT** operate this appliance unless it is fully assembled with reflector in place.
8. **DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.**
9. Installation and repair should be done by an authorised 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 be kept clean.

Prior to assembling your appliance, the following must be reviewed. Compliance with the following should result in satisfactory heater operation. This instruction manual should be retained for future reference. The installation must conform with local codes or authority having jurisdiction.

1. The patio heater is intended for heating residential and non-residential outdoor spaces. The installation must conform with local codes or, in the absence of local codes, with the Australian Standard AS 5601.
2. Adequate clearance around air openings into the combustion chamber, clearances from combustible materials, provisions for accessibility and for combustion and ventilating air supply must be maintained at all times when the appliance is operating.

3. Proper clearance from combustible materials must be maintained at all times. The minimum clearances are as follows:

Minimum Clearance from Combustibles:

Side	500 mm	Rear	500 mm
Ceiling	500 mm	Below	1970 mm

Combustible materials are considered to be wood, compressed paper, plant fibres, plastic, plexiglas or other materials capable of being ignited and burned. Such materials shall be considered combustible even though flame proofed, fire-retardant treated or plastered. Additional clearance may be required for glass, painted surfaces and other materials which may be damaged by radiant or convection heat.

4. The heater must be permanently fixed on a level and adequate footing. Attachment may be made utilising screw holes located near heater base.
5. The gas manifold supply pressure must be regulated at 1.0 kPa utilising an AGA approved regulator.
6. The appliance must be inspected before each use, and at least annually by a qualified service person.
 - a. The appliance area must be kept clear and free of combustible materials, gasoline and other flammable vapours and liquids.
 - b. Gas orifices and burner 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. Cleaning with a soft brush before use and at least every six months is recommended.
 - c. All gas connections should be checked for leaks utilising a soap solution. Never use a flame for this purpose.
 - d. The flame pattern at the emitter grid should be visually checked whenever heater is operated. If flames extend beyond surface of the emitter grid or black spot is accumulating on the emitter grid or reflector, the heater should be turned off immediately. The heater should not be operated again until the unit is serviced and or repaired.
 - e. Any cleaning agent used on the heater should be of a non-combustible and non-corrosive nature.
 - f. The stainless steel emitter grid normally does not require cleaning and should **NEVER** be painted. The reflector may be cleaned, but never painted.

Installation, Operation and Maintenance Instructions

ESSENTIAL INFORMATION

Standards Australia formulates standards and codes for such products, to which SITRO Group Australia (SGA) complies in the manufacture of all heaters, so as to provide a product of premium quality and of a high safety standard.

SGA will void any warranty applicable to the product if any component of the patio heater is tampered with, or altered.

To have these units altered or serviced by an unauthorised person may render the product inefficient, and at worst dangerous.

SERVICING INSTRUCTIONS

Appliances should be serviced at least annually and servicing must only be carried out by a Licensed Plumber or Authorised Person.

1. Remove Emitter Grid from Burner Housing. To remove Burner loosen the holding screw located at base of Burner tube through opening in gas control housing then turn Burner anticlockwise and pull free.
2. Clean the Burner Ports and top with a Soft Brush. Inspect and clean all combustion air inlets, then replace the Burner ensuring it is firmly secured.
3. Clean pilot head, thermocouple tip and spark igniter using a soft wire brush.
4. Check operation of the pilot, igniter and the thermocouple. Should new parts be required contact the Supplier or Sitro Group Australia.

INSTALLATION

Natural Gas Heaters must be installed by an Authorised Person.

Heaters can be floor mounted or suspended overhead on brackets.

Floor mounted heaters must be permanently fixed on a level and adequate footing.

Brackets for suspended installation must be permanently fixed to a solid structure.

Positioning of both floor mounted and suspended heaters must maintain required clearances.

i.e. 500mm above, 500mm on all sides and 1970mm below the heater emitter mesh.

It is a Standards Australia requirement that an approved metal tube such as copper or galvanized steel or an AGA certified stainless steel braided hose assembly be utilised to convey gas to the burner head, and must be installed by an authorised person, i.e. licensed plumber.

A Natural Gas Patio Heater is not designed for relocation to varying locations, so the most preferable permanent location should be selected prior to installation.

CARE

We strongly recommend the use of a patio heater cover to protect your patio heater when not in use.

All patio heaters must have the burner head covered when not in use. This will prevent blockages occurring, which may lead to the patio heater not igniting when required for use on the next occasion, or causing the burner not to function efficiently.

Such blockages can be caused by the accumulation of dust on various components in the burner head and by spider webs. Covering the burner head will also assist in reducing the weathering effects of the outdoors, as well as corrosion

Type of Gas	Natural
Consumption	45 MJ/h
Operating Pressure	1 kPa
Injector Size	3.25 mm

Heater specifications can be found on the data label located on the pole.

Installation, Operation and Maintenance Instructions

GAS PIPING

1. (a) Floor Mounted Heaters
A minimum pipe diameter of 15mm is required for inlet piping. A lever operated shut-off valve should be installed within 1 metre of the appliance for servicing the unit.
- (b) Wall or Ceiling Mounted Heaters
Where it is not practical to install solid tube inside the support bracket an AGA certified stainless steel braided hose can be installed. This hose assembly must comply with AS5601-2004 Gas Installations, pipe sizing tables and shall not exceed 3 metres in length. The internal diameter of the hose must not be less than 15mm.
2. Check with local and state plumbing and heating codes regarding sizing of the gas lines.
3. All gas pipe connections to the heater(s) must be sealed with a gas pipe compound resistant to Natural Gas.
4. Installation of a drip leg if required in the gas supply line going to each heater must conform to AS 5601.
5. When checking for gas leaks, do not use an open flame. Use a soap and water solution and check for bubbles indicating gas leakage.
6. Installation of 1/8" NPT plugged tapping, accessible for test gauge connections, is required upstream of the gas supply connection to the heater.
7. The heater must be permanently fixed on a level and adequate footing. Attachment may be made utilising the holes located in the heater base plate.

An AGA approved natural gas pressure regulator must be installed in the pipeline at the base of the heater and be set at 1 kPa.

Any modification to the heater not described in the installation instructions may compromise the safety of this appliance. Special concern is as follows:

- (1) **DO NOT** shorten post length;
- (2) **DO NOT** bypass thermocouple safety;
- (3) **DO NOT** operate heater without a reflector;

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.

DO NOT locate either the gas or any electrical supply lines directly over the top of the heater, as overheating may occur.

The Heater must be installed in a location such that it is readily accessible for servicing and have no restriction of air flow to the air inlet of the heater's casing.

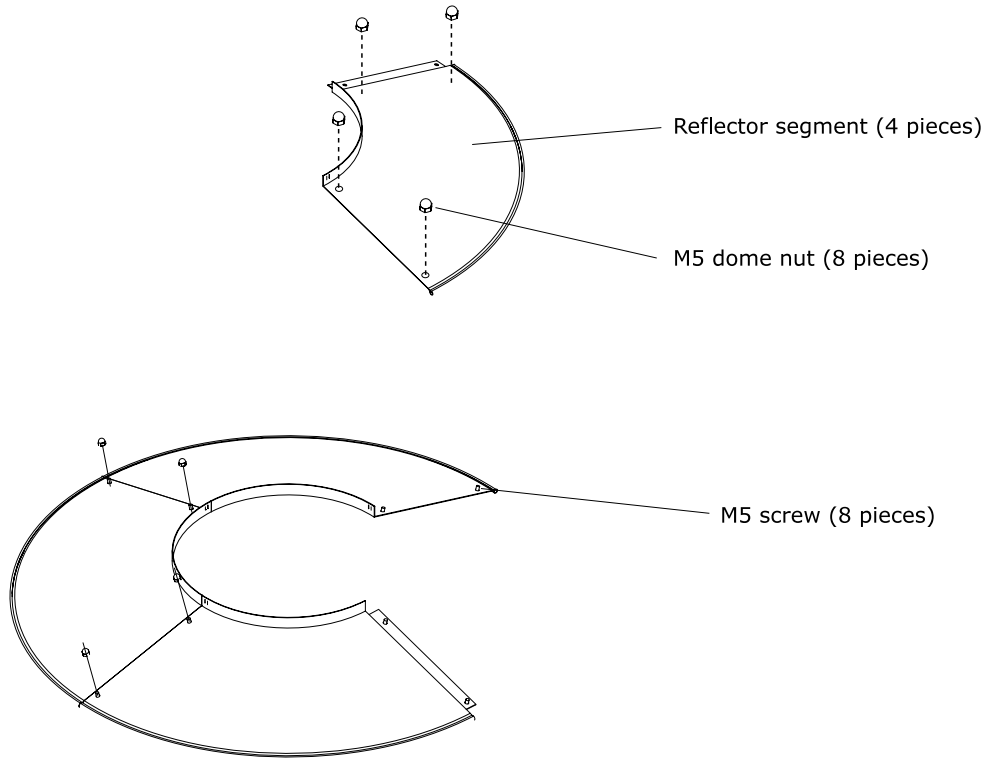
PARTS LIST

Part description	Quantity			
	NG1P45	NG2P45	NGW45	NGH45
Post 1 piece	1			
Post 2 piece		2		
Post A			1	
Post B			1	
Post C			1	
Post D			1	
Base plate round	1	1		
Base plate square			1	
Expanding bolts	3	3	4	
Protective cover	1			
Heater head	1	1	1	1
Reflector	1	1	1	1
Regulator	1	1	1	1
M6 x 10mm long screw	11	15	3	
M5 x 8mm long screw	3	3	22	3

REFLECTOR ASSEMBLY

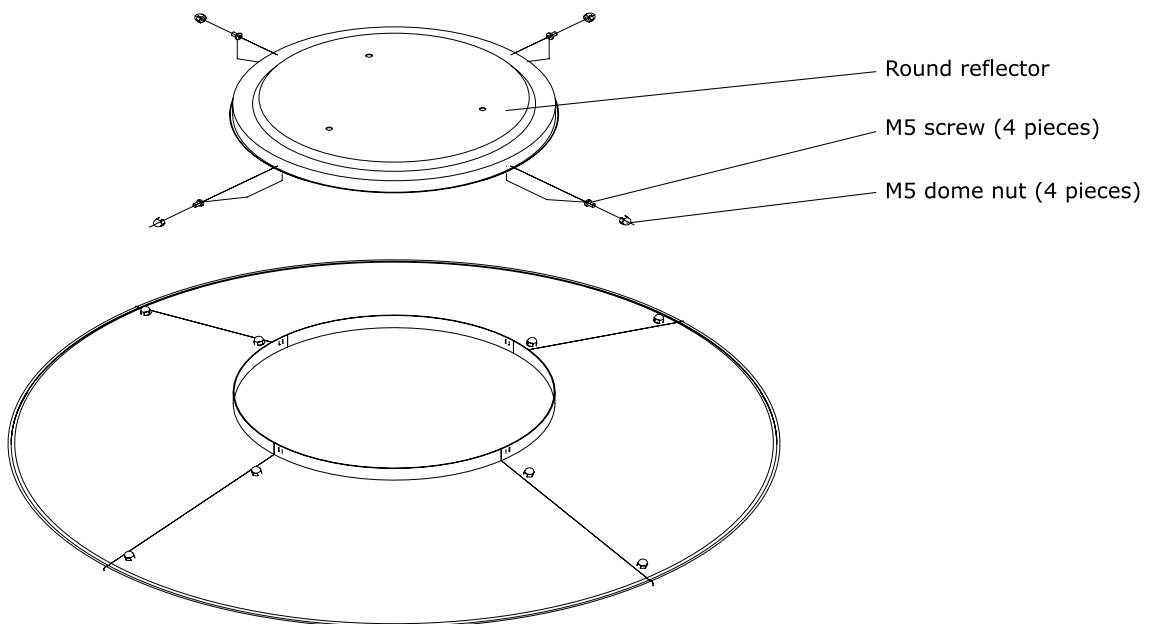
STEP A

1. Position the 4 segments of the reflector to overlap together.
2. Secure using 8 screws and dome nuts as illustrated.



STEP B

1. Place the round part of the reflector over the 4 assembled segments.
2. Secure using 4 screws and dome nuts as illustrated.



HEATER ASSEMBLY

NOTE: Recommended clearances *must* be maintained for ALL configurations.

TOOLS REQUIRED: Drill
10mm masonry drill bit
Adjustable spanner
Phillips head screwdriver

STEP 1.

Firmly attach the base plate using the three expanding fasteners to a concrete footing OR alternatively for NGW45 to a rigid pillar, wall or ceiling using four expanding fasteners.

STEP 2.

- Fasten the elbow fitting to the end of the gas pipe.
- Attach the other end of the gas pipe to the inlet of the heater head. Ensure that the fitting within the head is braced/held when tightening pipe.
- Slide the protective cover onto the post. OR alternatively for NGW45 connect an AGA certified stainless steel braided hose to the head, feeding it through the required post assembly. Where a hose assembly is to be used to connect an appliance it must comply with AS5601-2004 Gas Installations pipe sizing tables and shall not exceed 3 metres in length. The internal diameter of the hose must not be less than 15mm.

STEP 3.

- Slide assembled gas pipe and heater head into post.
- Turn heater head so elbow fitting lines up with opening at the bottom of the post.
- Secure the heater head, then attach to the post using three M5 screws 8mm long OR for NGH45 attach the head to the existing post ensuring that the securing of the head to the support pole is adequate.

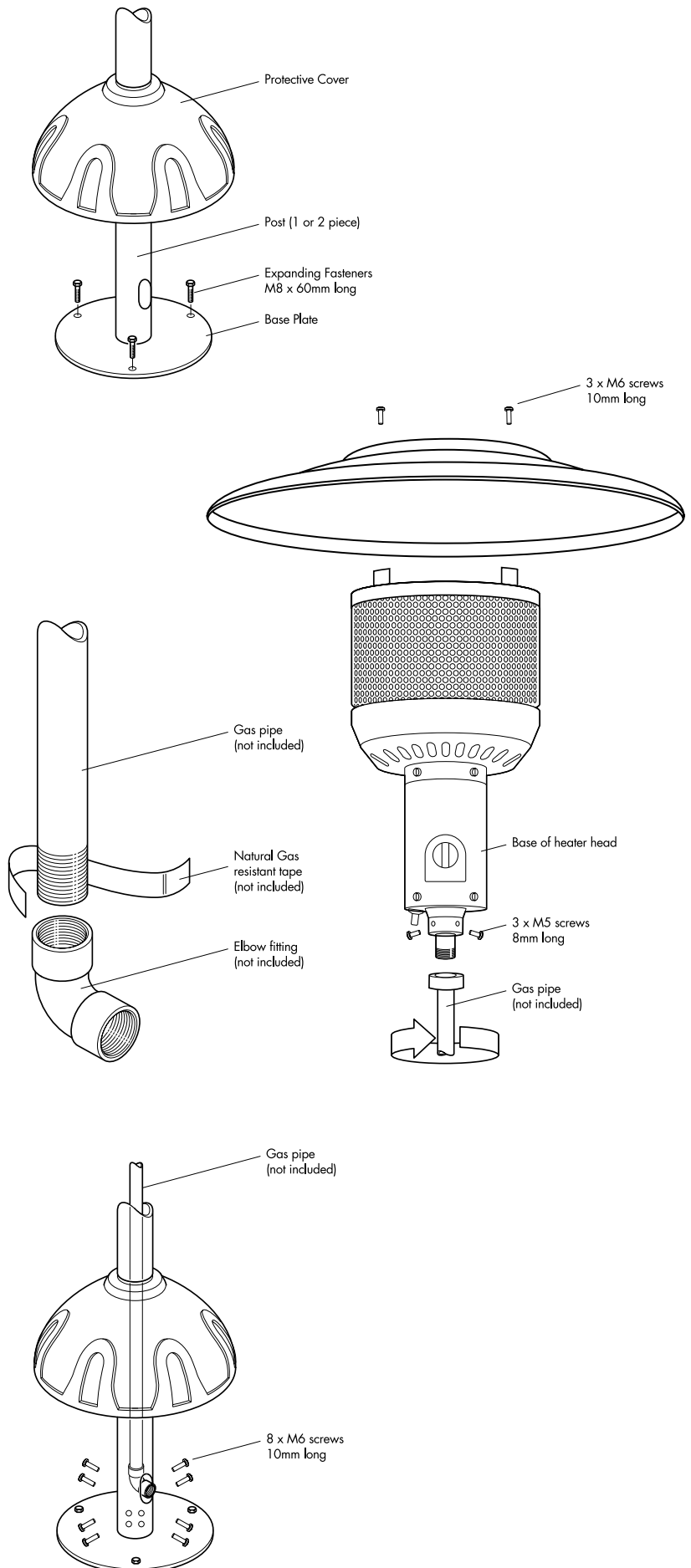
STEP 4.

Fasten the post to heater base using the eight M6 x 10mm screws provided.

NOTE: NGH45 is designed to fit a 50mm diameter pole.

STEP 5.

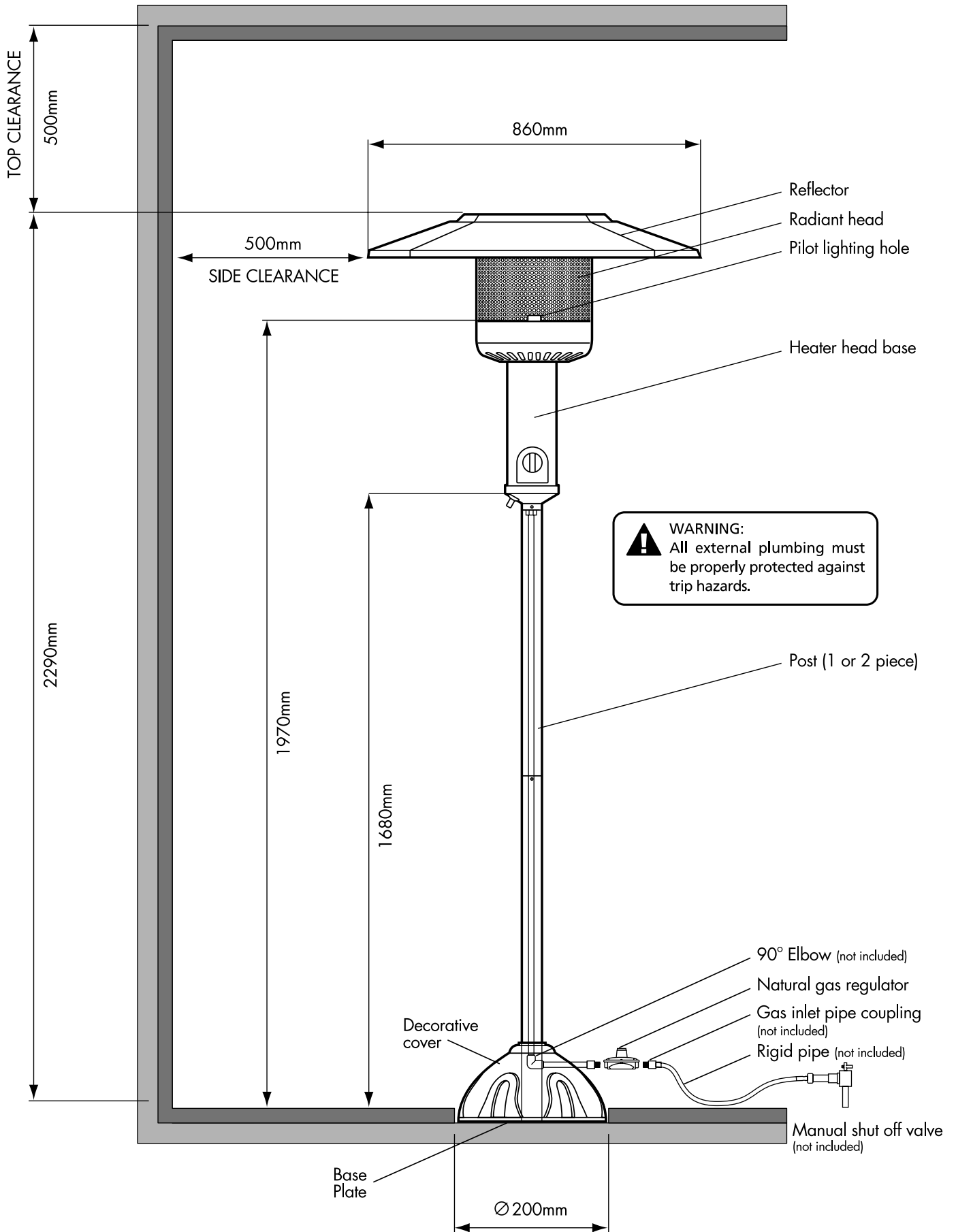
Attach the natural gas regulator between the manual shut off valve of the supply line and the heater gas hose or pipe.



FLOOR MOUNTED PATIO HEATER - Model No. NG1P45, NG2P45

For Outdoor Use Only

Minimum Clearance from Combustible Surfaces*:

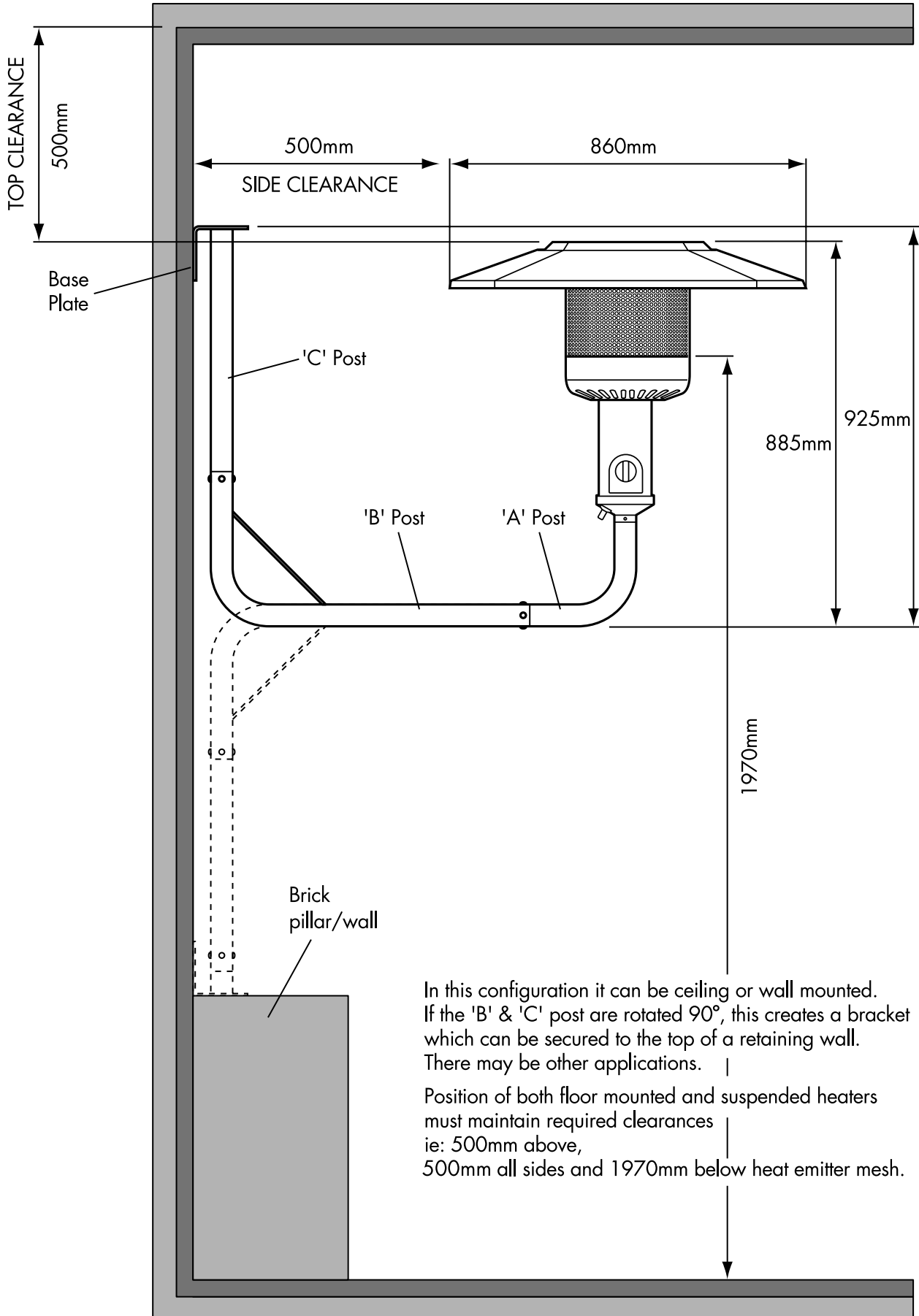


*Combustible materials are considered to be wood, compressed paper, plant fibres, plastic or other materials that are capable of being ignited and burned.

WALL MOUNTED PATIO HEATER - Model No. NGW45

For Outdoor Use Only

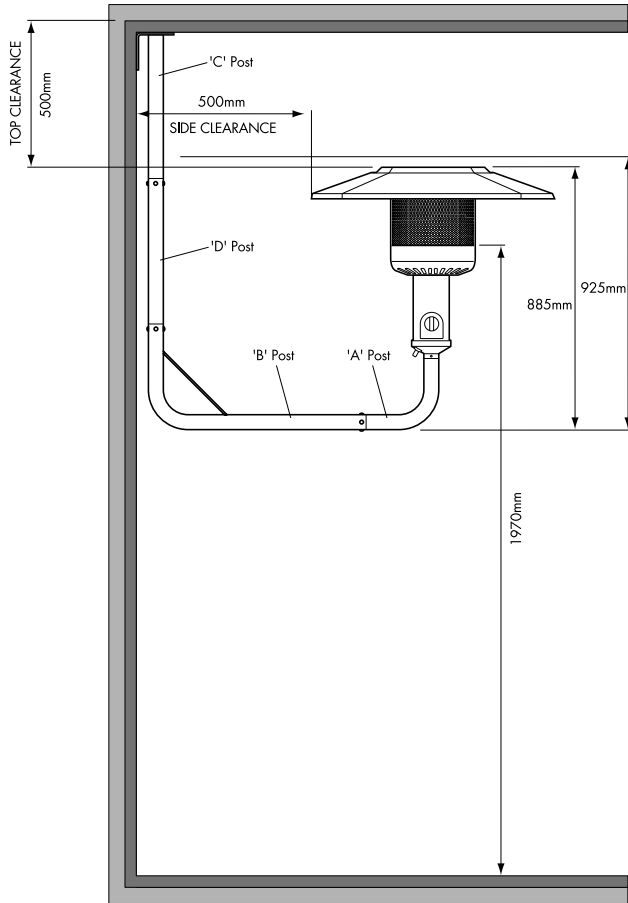
Minimum Clearance from Combustible Surfaces*:



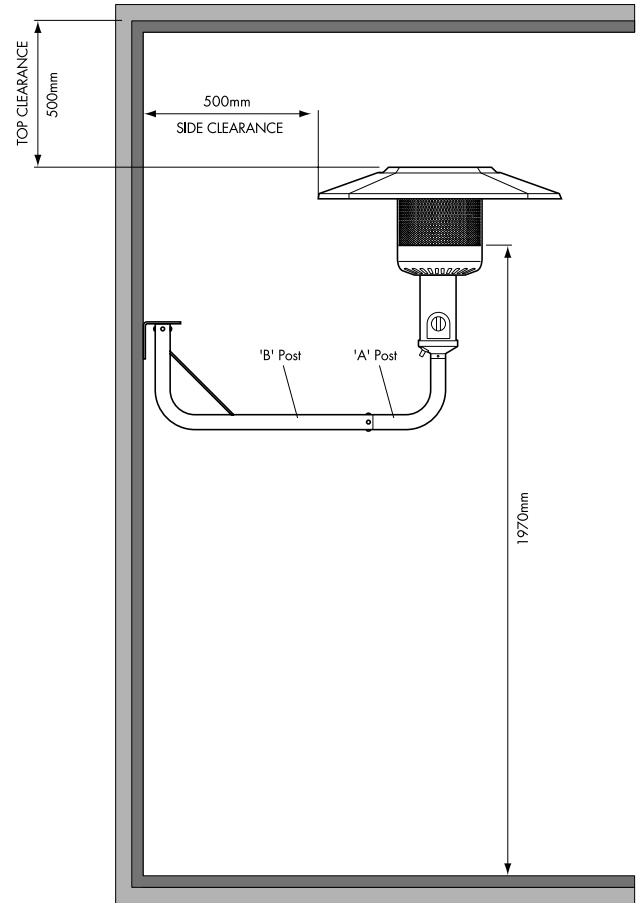
*Combustible materials are considered to be wood, compressed paper, plant fibres, plastic or other materials that are capable of being ignited and burned.

VARIOUS CONFIGURATIONS

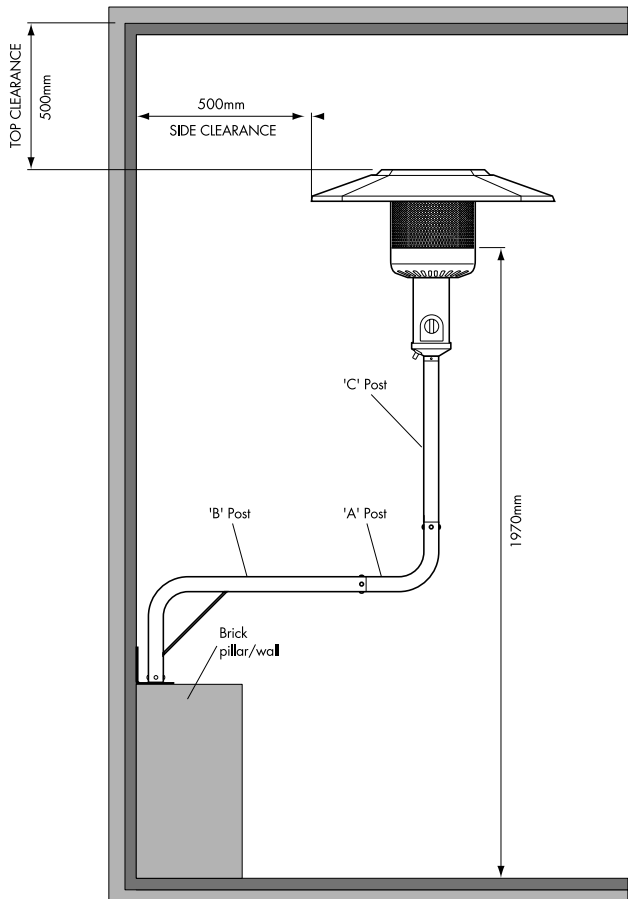
Version 1. Bracket Mounted to Ceiling



Version 2. Bracket Mounted to Wall



Version 3. Bracket Mounted to Brick Pillar / Wall



TEST FIRING HEATER

Test fire heater, following the lighting instructions on heater post. Leak test all gas connections with soapy water. Soap bubbles indicate gas leakage. **DO NOT** use a match to test for gas leaks.

Warning: White smoke may appear around the radiant head during the first minute of the initial firing.

TROUBLE SHOOTING

Problem	Possible Causes
Pilot won't light	<ul style="list-style-type: none">• Air in gas line• Low gas pressure• Gas line turned 'OFF'• Blockage in gas line• Ignitor did not spark
Pilot won't stay lit	<ul style="list-style-type: none">• Suspect thermocouple• Corrosion of thermocouple contact• Suspect valve• Wind exceeding 16 kph
Main burner won't light	<ul style="list-style-type: none">• No gas• Low gas pressure• Blockage in orifice• Manual valve not in 'LIGHT' position

Warning: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Any modifications or adjustments made to product without prior authority from the manufacturer will void any warranty claims. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

LIGHTING INSTRUCTIONS

Warning: White smoke may appear around the radiant head during the first minutes of the initial firing.

Step 1.

Ensure that the control knob is off. Slowly open the manual shut off valve.

Step 2.

Press and turn the control knob to 'PILOT' position, keep control knob in pressed position and press piezo ignitor button until pilot lights.

Step 3.

Check for pilot flame through pilot lighting hole. If pilot does not light turn control knob to 'OFF' position and try again from the start. Several attempts may be necessary.

Step 4.

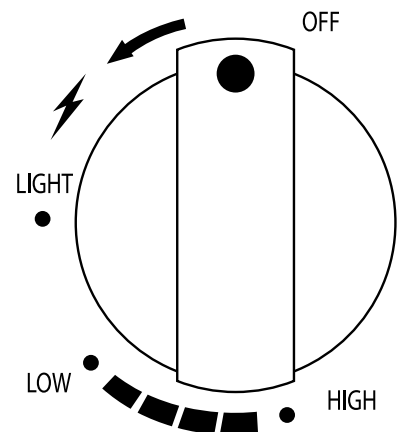
With the pilot alight keep control knob depressed for 15 seconds then turn the control knob to 'HIGH'.

Step 5.

Temperature can then be adjusted by turning the control knob between 'HIGH' and 'LOW' position.

Step 6.

To turn heater off, turn control knob to 'OFF'.



SAFE APPLIANCE LOCATIONS

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:

An enclosure with walls on all sides, but at least one permanent opening at ground level and no overhead cover (see Example 1).

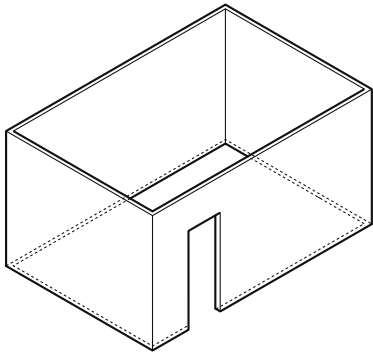
Within a partial enclosure that includes an overhead cover and no more than two walls (see Example 2 & 3).

Within a partial enclosure that includes an overhead cover and more than two walls, the following will apply:

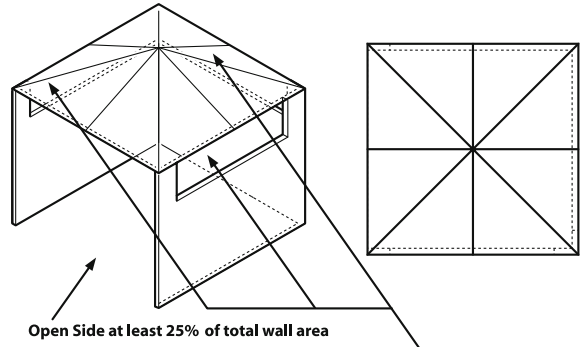
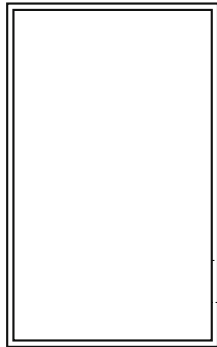
at least 25% of the total wall area is completely open, and
at least 30% of the remaining wall area is open and unrestricted (see Example 4 & 5).

In the case of balconies, at least 20% of the total wall area shall be and remain open and unrestricted.

The following figures are diagrammatical representations of outdoor areas. Rectangular areas have been used in these figures - the same principles apply to any other shaped area.

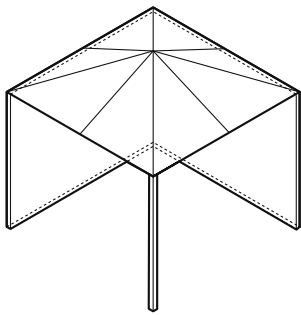


Outdoor Area - Example 1

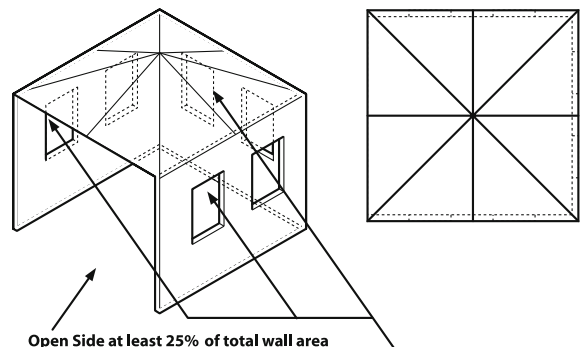
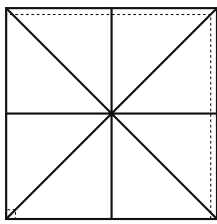


Open Side at least 25% of total wall area
30% or more in total of the remaining wall area is open and unrestricted

Outdoor Area - Example 4

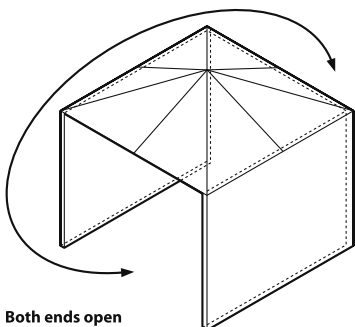


Outdoor Area - Example 2



Open Side at least 25% of total wall area
30% or more in total of the remaining wall area is open and unrestricted

Outdoor Area - Example 5



Both ends open

Outdoor Area - Example 3

