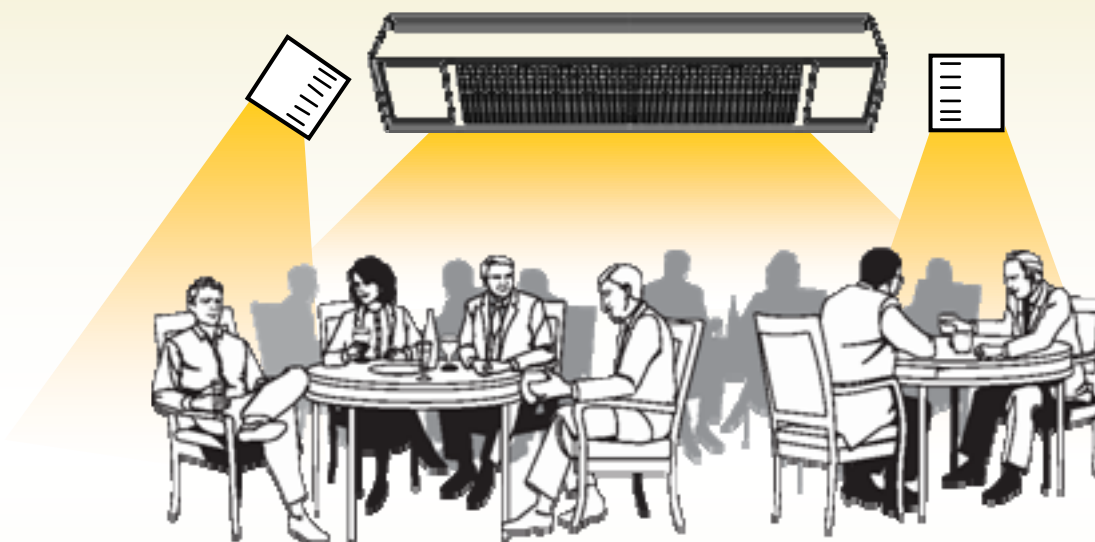


Sunpak S34 Heater

OPERATION, INSTALLATION & MAINTENANCE INSTRUCTIONS
FOR THE SUNPAK S34 PATIO HEATER



*'Your patio will shine with a
SUNPAK stainless steel heater'*

TECHRITE



www.techrite.com.au

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Sunpak S34 Heater

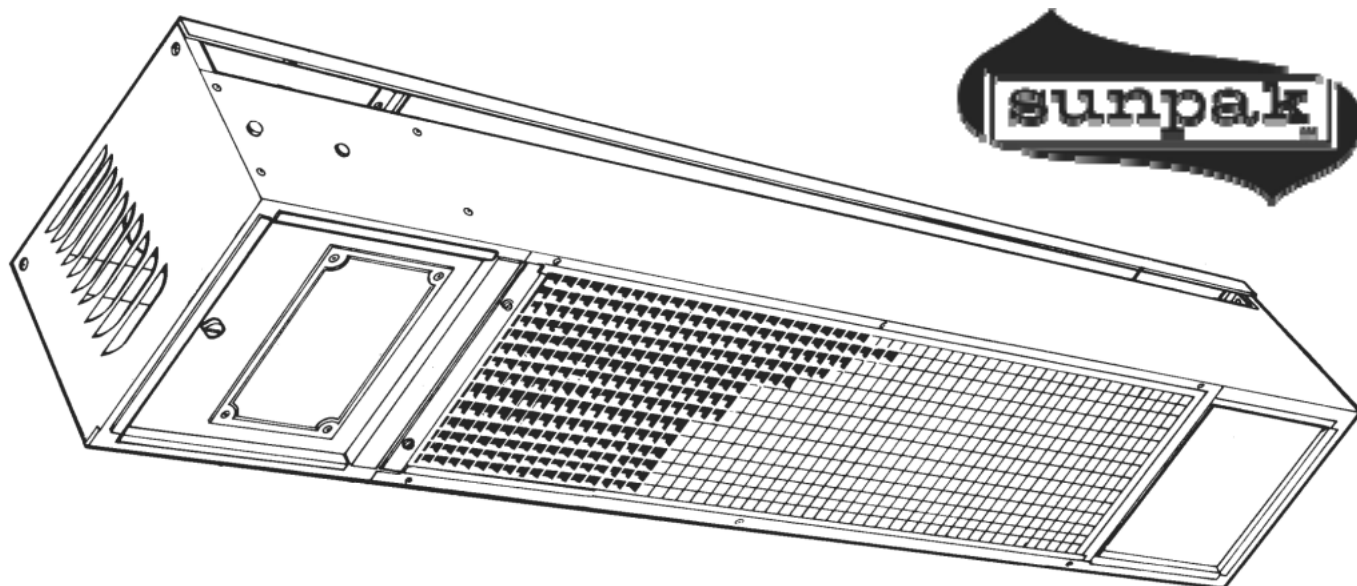
*OPERATION, INSTALLATION & MAINTENANCE INSTRUCTIONS
FOR THE SUNPAK S34 HEATER*

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**MODEL S34****Gas-Fired Infrared Heater**

For indoor or outdoor operation



The SUNPAK patio heater provides radiant warmth for you, your family and friends.

SUNPAK is AGA certified as a flueless infrared heater suitable for domestic and commercial outdoor and commercial indoor use. All units are equipped with spark ignition and 100% shutoff for safety.

SUNPAK's stainless steel enclosure and aluminium face grille provides resistance to the wind. A slim body gives SUNPAK the versatility to fit easily into a wide variety of patio situations.

WARNING:

Appliance must be installed to the requirements of Gas Code AS5601 and the local authorities, both Gas and Electrical.

Retain these instructions for future reference. Installation of SUNPAK heaters should only be performed by an authorised person.

HEATER FEATURES

- Automatic operation
- Slim profile
- Decorative safety grille
- Reduced clearance requirements
- Angle mounting - zero to 30°
- 34MJ/h input
- Natural Gas or LPG
- Direct spark ignition
- 100% safety shutoff
- Stainless steel body
- Easy installation



Sequence of Operation

Turn gas and power 'ON'. The pilot and burner should light within 4 seconds. A flame sensor will shut off the spark. If the burner does not light within 15 seconds, the flame sensor will shut the gas valve 'OFF'. To re-light the pilot and burner, shut 'OFF' power. Wait 5 minutes. Turn power back 'ON'.

Maintenance Trouble-Shooting

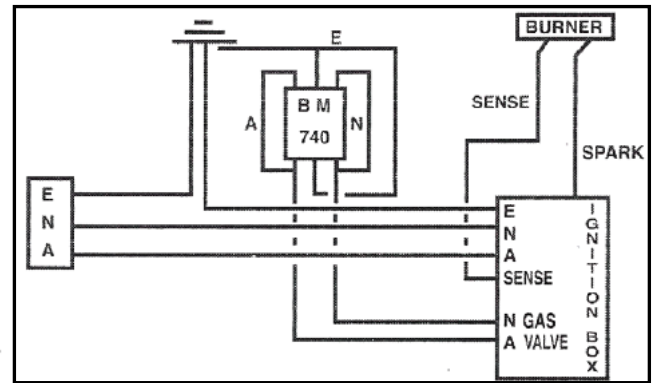
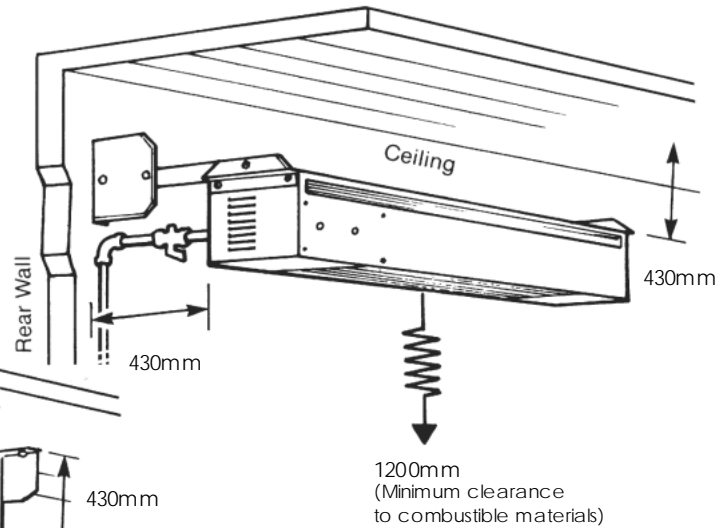
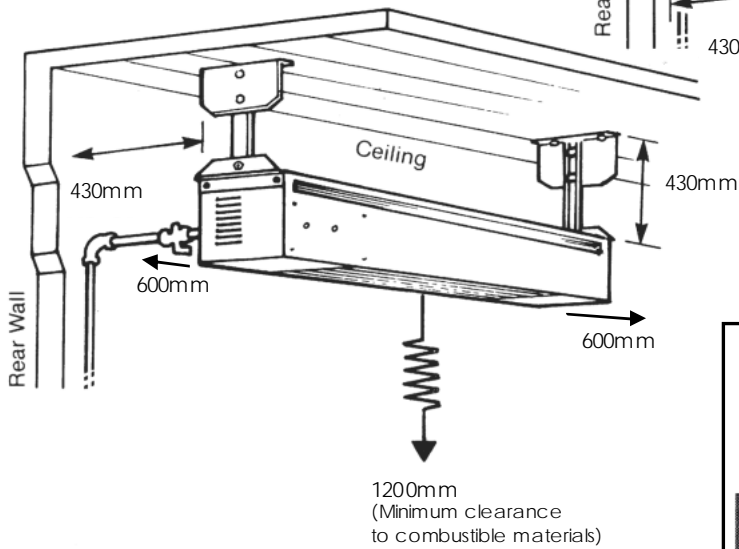
Problem	Possible Causes
No spark to pilot	<ul style="list-style-type: none"> • Voltage under 240 volts • Improper spark gap 2.7mm • Loose ground wire • Broken electrode • Faulty electronic module
Burner won't light	<ul style="list-style-type: none"> • Air in gas line • Low gas pressure • Gas valve failure • Blockage in gas line or main injector • Broken electrode
Inconsistent operation	<ul style="list-style-type: none"> • Variable gas pressure (improperly sized gas line) • Variable voltage • Wind exceeding 24km/h • Debris inside burner • Erratic winds
Deterioration of the front grille	<p>SUNPAK heaters must be installed in such a manner as to allow the products of combustion or hot gases to vent out the top portion of the heater. When operating normally, only radiant heat passes through the front grille. If conditions exist which force hot gases through the front grille of the heater, the installation must be altered to correct the condition.</p>

Limited Warranty and Service

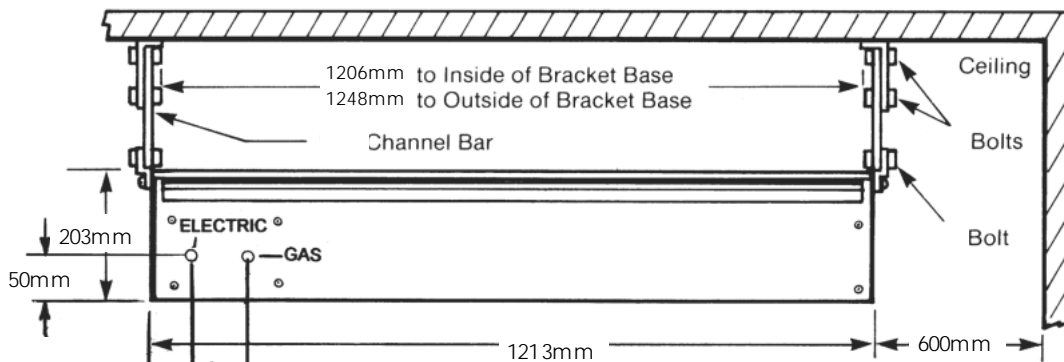
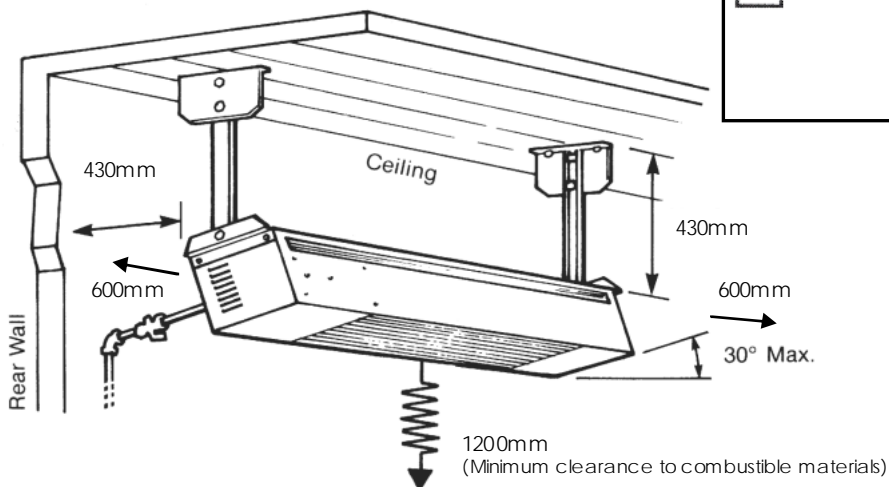
SUNPAK infrared heaters carry a 90-day commercial or one year residential limited factory warranty. All heaters are stamped with the date of manufacture. In most cases, your dealer or sales representative will handle the warranty procedure for you. If there is no sales representative available, the heater may be returned to the factory for repair. Warranty is limited to repair of heaters at the factory or replacement parts. Any work or repair of this heater must be performed by qualified service personnel. Any unauthorized tampering with the heater will void warranty. Techrite will not be liable for any expense to the customer, except as stated above.



**MINIMUM CLEARANCE
TO COMBUSTIBLE MATERIALS
USING OPTIONAL MOUNTING KIT
P/N 12006**

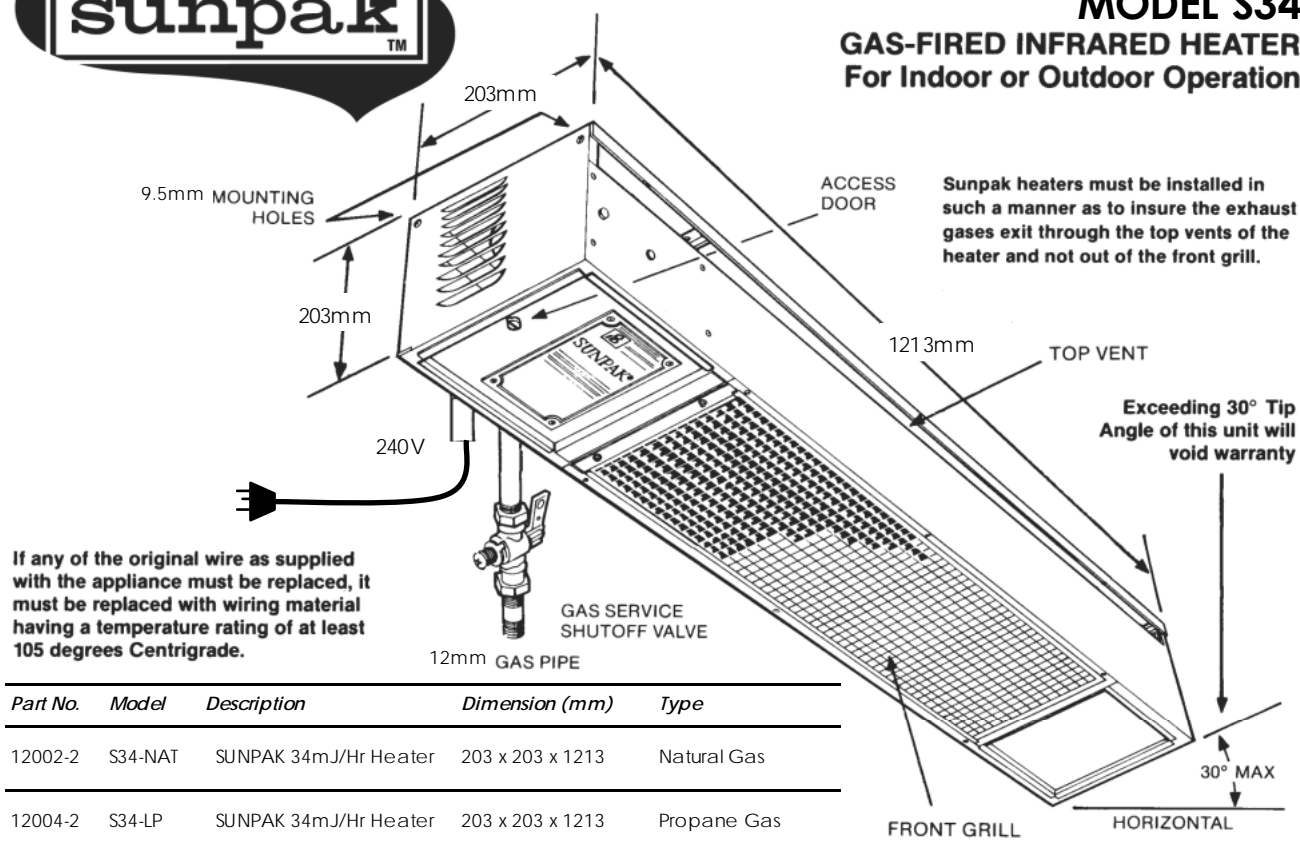


S34 WIRING DIAGRAM





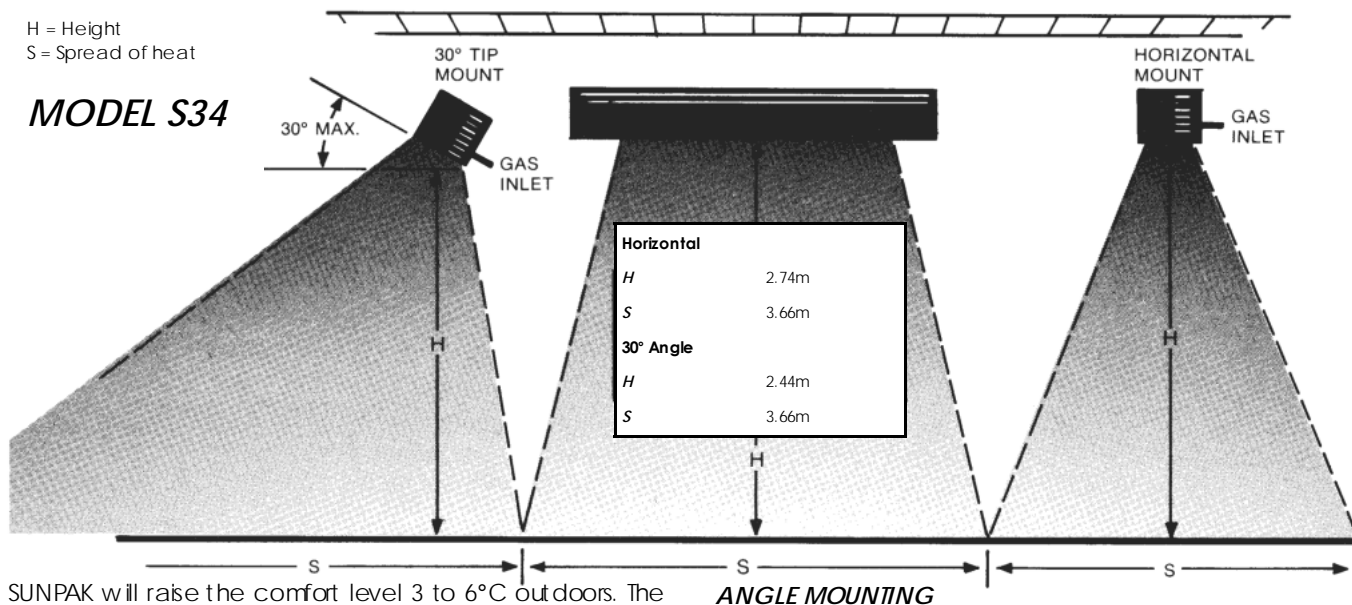
MODEL S34 GAS-FIRED INFRARED HEATER For Indoor or Outdoor Operation



CEILING MINIMUM CLEARANCE FROM COMBUSTIBLES MUST BE MAINTAINED (see chart on page 5)

H = Height
S = Spread of heat

MODEL S34



SUNPAK will raise the comfort level 3 to 6°C outdoors. The above coverage table was based on still breeze conditions. Under windy conditions, more heat will be required. For example, an 8km/h breeze typically will require twice as many heaters to achieve the same comfort level. It is recommended that a windwept patio be designed with wind breaks in order to stabilize the patio environment.

The SUNPAK heater may be angle mounted to a maximum of 30° to accommodate mounting the heaters around the patio.

INSTALLATION

Prior to installing your SUNPAK infrared space heater, the following should be reviewed.

Compliance with the following should yield satisfactory heater operation and minimize installation costs.

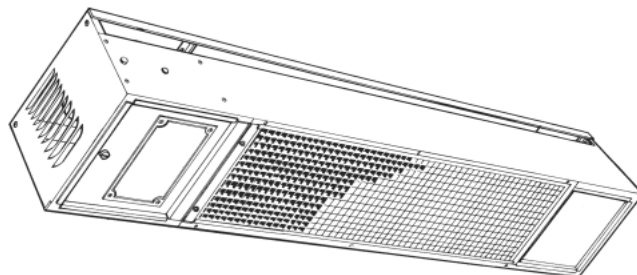
1. The gas inlet supply and normal operating manifold pressure for each heater are as follows. For gas supply line pressure in excess of 5kPa, consult with your representative or the factory. The pressure regulator supplied with the appliance must be installed in the gas line for natural gas models.

Gas inlet pressure	Nat. Gas	LP Gas
Maximum pressure	5kPa	5kPa
Manifold pressure	1.0kPa	2.6kPa

Sunpak heaters must always be operated in a location that allows uniform air pressure around the heater. If only part of the heater is located in a wind protected zone damage to the heater or incorrect operation may occur. Time should be taken to observe how the wind will affect the heaters under local conditions.

- **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 operating.**
- **Children and adults should be alerted to the hazards of high surface temperatures, burns 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.**
- **It is imperative that control compartment, burners and circulating air passageways of the appliance be kept clean.**

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



2. 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. When installed indoors (commercial installations only) minimum room volume 200m³.
4. When installed outdoors this heater must be in a covered area protected from rainwater.
5. When installation is complete check the soundness of the gas connections using a manometer or soapy water.
6. Fully test the appliance's operation. If unable to adjust correctly, contact the supplier.

MOUNTING

Each heater must be installed such that the following minimum clearance from combustibles are maintained.

Mounting Kit

A mounting kit is supplied with the heater. Whether the mounting kit is used or not, minimum clearance from combustibles must be observed as follows:

Model	Input mj/hr	Side mm	Rear mm	Ceiling mm	Below mm
S34	34mj	600	430	430	1200

WARNING: The clearances shown above are also applicable to furniture or vehicles parked below heaters.

Above clearances apply to models on either natural or LPG gas.

Appliance supplied with 1 metre lead and standard 3-pin plug.

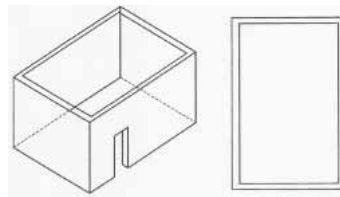
UNIT CLEARANCE

The unit must have the following clearances from combustible materials: 430mm above and beside, 600mm at the sides ends and 1200mm below.

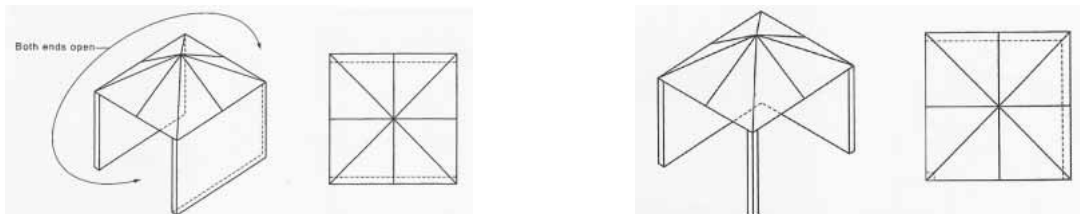
This appliance shall only be used in an above ground open-air situation with natural ventilation, without stagnant areas, where gas leakage and products of combustion are rapidly dispersed by wind and natural convection.

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.

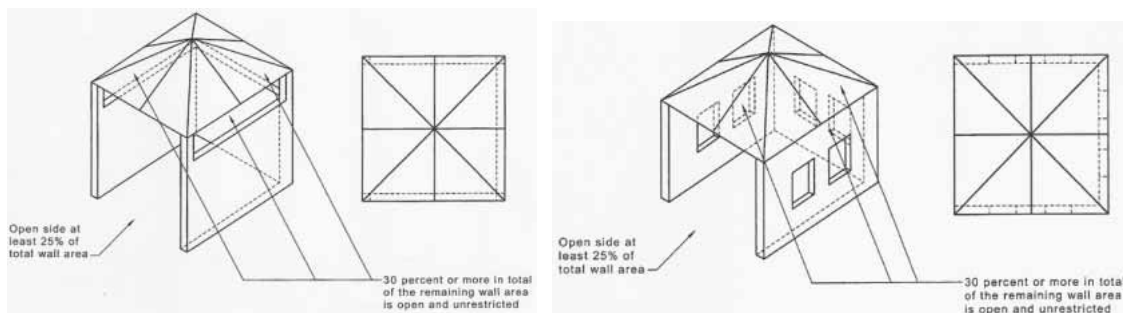


Within a partial enclosure that includes an overhead cover and no more than two walls.



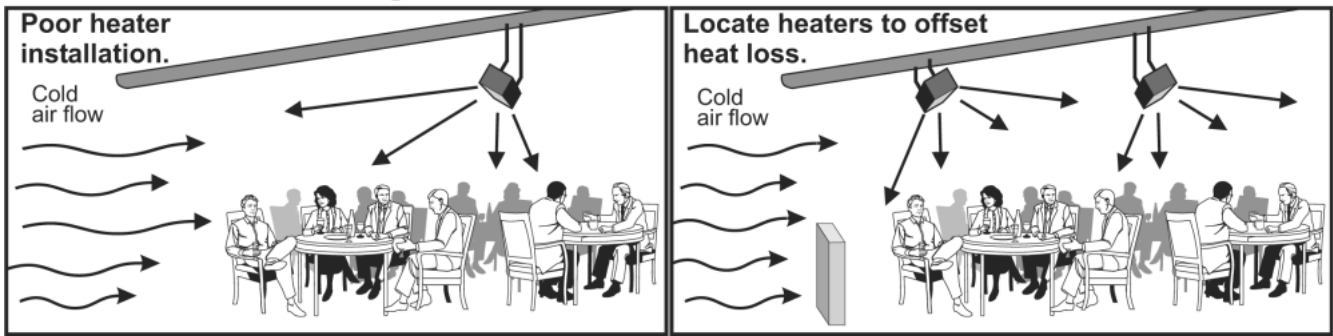
Within a partial enclosure that includes an overhead cover and more than two walls, the following shall apply:

- At least 25% of the total wall area is completely open, and
- At least 30% of the remaining wall area is open and unrestricted.

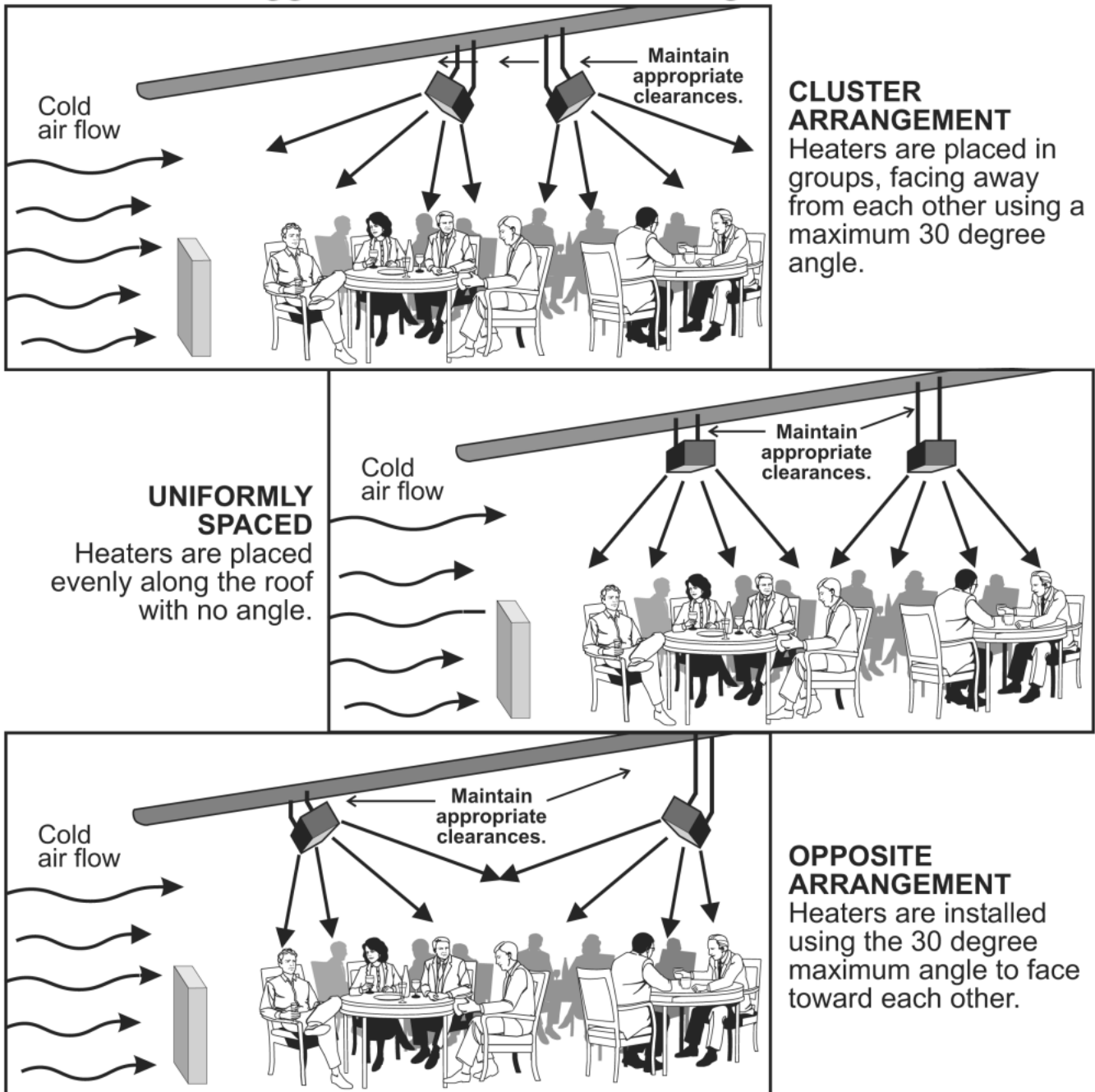


In the case of balconies, at least 20% of the total wall area must remain open and unrestricted.

Sunpak® Infrared Heater Location



Suggested Installation Configurations

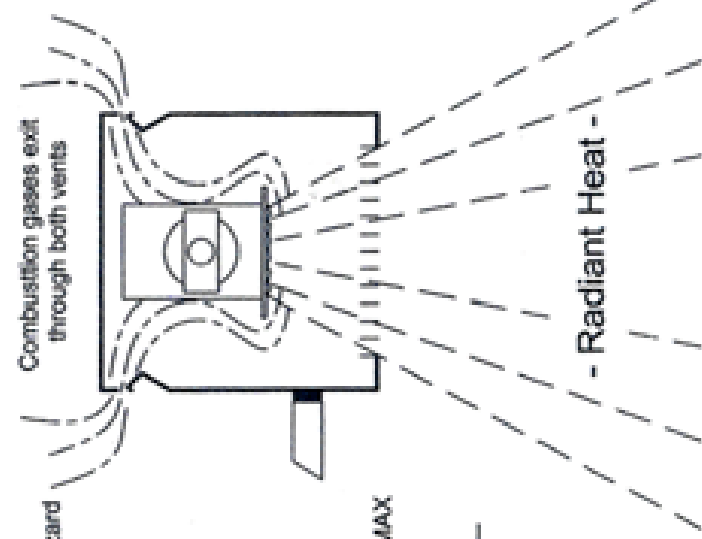
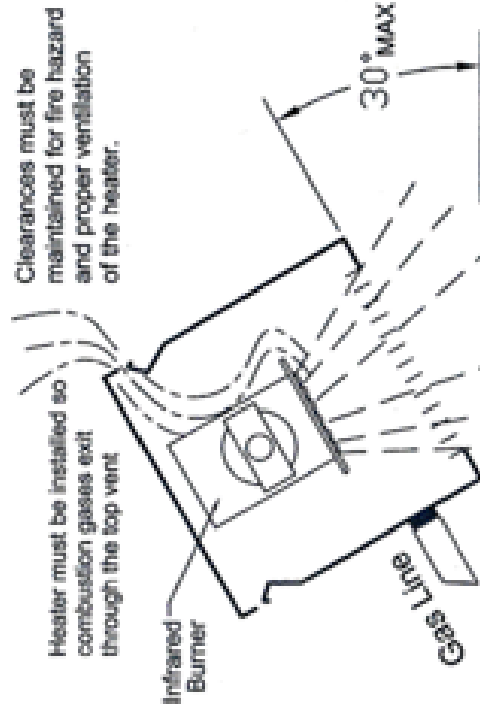


SUNPAK S34 HEATER - Proper Mounting Location

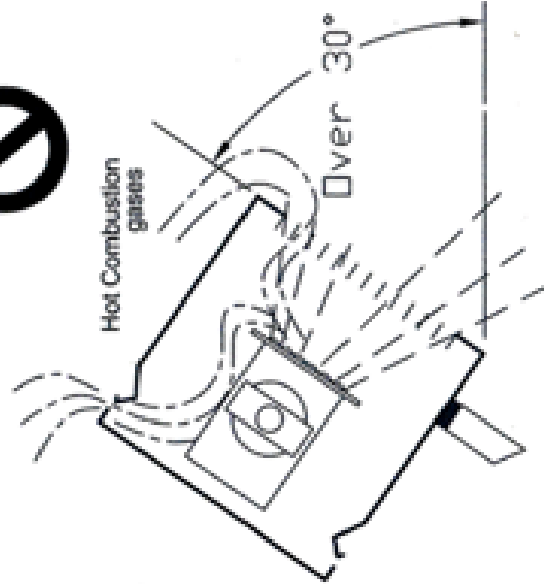
Sunpak Heater must be mounted correctly
(Control End View)

Angle Mounted

Horizontal Mounted



Incorrect Mounting
will cause
damage to heater



Heater is improperly mounted at greater than a 30° angle resulting in combustion gases spilling out of the front, resulting in deterioration of the front grille and damaging heater components.

LIGHTING INSTRUCTIONS

To start the heater:

Turn electricity supply **'ON'**

To shut down heater:

Turn electricity supply **'OFF'**

CAUTION: If burner fails to ignite, shut down electrical power and wait five (5) minutes before turning power **'ON'**.

SERVICING INSTRUCTIONS

Performance of Routine Maintenance

Over time, particularly during long periods of disuse, the heater can accumulate dirt and debris in and around the pilot and burner. Routine maintenance should be performed at least once a year by a qualified service technician to insure the heater is operating properly. More frequent service may be required for heaters located near coastal regions. Servicing shall be carried out only by authorised personnel.

Service Instructions

Turn off gas and electricity before attempting any service to this appliance. Internal workings/components of the heater are located behind the service door. The service door can be opened by turning the black knurled knob at least 1/4 turn. Rotate round slotted disk on control door 90° to open. Top of heater may need to be removed if the gas controls, burner or burner orifice is to be replaced.

1. Removal of burner

- A) Remove grille by removing two (2) screws at one end of grille near control door. Pull downward at the end and grille will loosen. The far end of the grille is supported by two (2) pins that enter (2) holes in the reflector's far end.
- B) Remove top of heater by removing six (6) screws holding top in place.
- C) The burner can be removed without removing the pilot electrode assembly. However, extreme care should be taken to prevent the burner from contacting the fragile electrode when removing or re-installing the burner.
- D) To remove the pilot-electrode assembly, disconnect the electrical wire. Detach the pilot tubing. Remove the two (2) screws holding the pilot electrode in place.
- E) Remove 9.5mm hex locknut located inside burner orifice bracket holding piping assembly to burner. A 22mm 12-point wrench will be handy to loosen the 9.5mm locknut from the top of the heater.
- F) Remove two (2) screws holding the end of the burner. Carefully slide burner down and out. When re-installing, be sure both ends of the burner are beneath the reflector and end flanges.
- G) To re-install burner, reverse procedure.

2. Removal of TECHRITE AIS spark ignition control

- A) Disconnect 240 Volt power.
- B) Disconnect HTlead.
- C) Disconnect two (2) valve leads.
- D) Disconnect ignitor lead from control
- E) Remove two (2) screws and nuts holding control in place
- F) If insufficient removal clearance, loosen control assembly and move out of way.

INSTALLATION TROUBLE SHOOTING

1. If no spark from electrode; or if gas valve doesn't work then:

- A) Check power supply. Should have 240 volts AC at control. Use volt meter between inlet 240 volts wire and ground terminal at electrode plate to measure 240 volts.
- B) Check continuity. Use ohmmeter. For example, check resistance between valve wire and ground. Should show almost no resistance (0 ohms) through valve. If high resistance, check wire connectors.
- C) Check spark gap. Should be 2.7mm between electrode tip and pilot hood. If gap is too large, spark will occur at wrong location. If gap is too small, spark may not be hot enough to light pilot burner.
- D) Be sure connectors are fully inserted into ignition control (see wiring diagram on rating plate)

2. If insufficient gas flow then:

Burner orifice is blocked. Remove heater top, remove burner orifice (use 12mm hex wrench) and thoroughly clean. Spiders often crawl into orifice hole and make a web, blocking the orifice.

SUNPAK S34 Heater Manual



**Turn on Sunpak
and heat things up!**

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