

This appliance conforms to the requirements of SANS 1539

LPGSASA Permit Number: 1121-24/1-RSA-17-A

Model:

700

1000

Singe Sided Model Number:

FD470CL

FD700CL

Double Sided Model Number:

FD470DSCL

FD700DSCL



infiniti fires

**Classic Flueless Gas Fireplace
Installation & Operating Instructions:
700 & 1000,
Single & Double Models**



Please read these instructions carefully before installation and use, and retain them for future reference

Updated: 15 Mar 2024

WARNING

This appliance shall not be installed in bedrooms or bathrooms.

WARNING

This is a Flueless gas fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate ventilation must be provided. Refer to the appropriate section of the user manual.

WARNING

CARBON MONOXIDE POISONING CAN LEAD TO DEATH

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness or nausea. If you have these signs, the heater may not be working properly. Get fresh air at once! Have the heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anaemia, those under the influence of alcohol, and those at high altitudes.

WARNING

Insufficient ventilation will cause an increase in the moisture level in the room which may damage wallpaper, curtains and other soft furnishings leading to the formation of mould. Should this occur, increase the level of ventilation in the room.

1. Introduction

Thank you for purchasing your new Infiniti Fires Classic Flueless Gas Fire manufactured to the highest standards and tested in South Africa for compliance with the National Standard. This appliance is designed to give users years of trouble free and efficient service. Please read the following instructions carefully. Please note that this fireplace must be installed by a Registered Gas Installer as indicated below. The manufacturer and/or its agents and distributors will not be held liable for injuries or damages caused by faulty or incorrect installation work.

2. Technical Data

Classic Model	700 (200)	700 (300)	1000
Grate Model Number – Single Sided	FD470CL (200)	FD470CL (300)	FD700CL
Grate Model Number – Double Sided	FD470DSCL (200)	FD470DSCL (300)	FD700DSCL
Heat Output	5Kw	7Kw	10Kw
Room Heating Capacity	200m ³	300m ³	400m ³
Legal Minimum Room Size	75m ³	125m ³	185m ³
Permanent Ventilation if required	2 x 98cm ²	2 x 160cm ²	2 x 240cm ²
Gas Consumption	17MJ/hr	25MJ/hr	38MJ/hr
Gas Consumption LPG	0.300kg/hr	0.490kg/hr	0.740kg/hr
Number of Jets	1	1	1
LPG Models			
LPG Jet Marking/Size	U/1.3mm∅	M/1.5mm∅	L/1.9mm∅
LPG Inlet Pressure	2.8KPa	2.8KPa	2.8KPa
LPG Burner Pressure	1.8KPa	1.8KPa	1.8KPa
NG Models			
NG Jet Marking	2/2.5mm∅	4/2.9mm∅	6/3.5mm∅
NG Inlet Pressure	2.0KPa	2.0KPa	2.0KPa
NG Burner Pressure	1.4KPa	1.4KPa	1.4KPa

3. Important Information for the user

Read the instructions carefully before using the appliance and retain them for future reference. This appliance consumes oxygen when in use. It is important that it is used in a well-ventilated area for the appliance to work correctly and for the safety of room occupants. This gas appliance may only be installed by a Registered Gas Installer. All Registered Gas Installers are issued with a driver's license size card, displaying their registration number. Check the type of gas they are registered to work with complies with the gas type you will be using. If there is any doubt on the registration of your chosen installer, log onto www.saqccgas.co.za to look up their details. Upon completion of the installation, the installer is legally required to explain the operational details of the appliance, together with the safety instructions, and is required to issue you a Certificate of Conformity. You will be asked to sign acceptance of the installation on this Certificate of Conformity. Note that your invoice for this appliance and this Certificate of Conformity is required in the event you wish to make a Warranty Claim. Please read carefully the specific warranty conditions on page 16.

4. Important Information for the Registered Gas Installer

- LPG Models may only be installed by a gas installer registered with SAQCC GAS to install LP Gas appliances and Natural Gas Appliances may only be installed by a gas installer registered by SAQCC Gas to install Natural Gas appliances.
- LPG appliances must be installed in accordance with SANS 10087-1 and Natural Gas appliances to SANS827. In addition, LPG and Natural Gas installations must also comply with any local Fire Department regulations and or local bylaws applicable to that area.
- If in doubt, check with the local authority before undertaking the installation.
- Upon completion of the installation, you are required to fully explain and demonstrate to the user the operational and safety practices applicable to the appliance and the installation, as well as issue a valid Certificate of Conformity for the installation work done.
- This appliance has been designed specifically for use with either only LPG or only Natural Gas, as marked on the appliance label/jet. It may not be used with any other gas than that for which it has been designed. Read these Installation & Operation Instructions carefully before commencing the installation.
- Pay particular attention to the Legal Minimum Room Sizes/ventilation requirements detailed under the technical data, and that this appliance may not be legally installed in a bedroom or bathroom regardless of room size.
- For detailed installations and set up instructions please read the rest of this Installation & Operation Instructions.

5. Items General to all makes of Flueless Gas Fires/heaters

Do not install this appliance in a bedroom or bathroom regardless of the room size.

5.1 Gas Cylinders

- LP Gas Appliances require the following minimum gas cylinder sizes to work effectively.
- Gas Consumption at max setting:
Up to 0.5kg/hr 1 x 19 Kg Gas Cylinder
0.5 - 1.0kg/hr 1 x 48 Kg Gas Cylinder
1.0 - 2.0kg/hr 2 x 48 Kg Gas Cylinder

5.2 Hot Air Rises

- Flueless Gas Fires feed hot air into a room. Hot air rises. A flueless gas fire therefore requires a ceiling to distribute the heat around the room. The lower the ceiling & the better insulated the ceiling, the better the heat is spread.
- Flueless Gas Fires/heaters are ineffective heaters in rooms that have abnormally high ceilings, exposed roofs or double volume spaces. The exception to this rule is if there is a ceiling fan that can blow the heat back down.

5.3 Size the fire to the room being heated

- It is best for the efficient & odourless performance of these gas fires that the heating capacity of the fire be sized to be a little larger than the room it is being used in.
- Putting a high heat output fire in a room way smaller than the fire's heating capacity will result in a high build of CO/CO₂ as well as an odour in the room.

5.4 Particles in the Air

- A flueless gas fire/heater draws in air from the room, takes it through its combustion process & returns it into the room as hot air. Any particles in the air could be burnt in the combustion process and could leave an odour in the room.
- It is best that no aerosols are used in the room where the fire is installed for 3 hours before the fire is lit.

- If you repaint the room with a paint that has a strong smell whilst it is curing (enamel paint tends to be the strongest smelling). It is best not to light the fire till the paint has cured.
- If you have parkez or wooden flooring where the wood is treated regularly and/ or heavily with a wax polish, do not install a flueless gas fire/heater. The fire/heater will burn these particles and leave a strong odour in the air.

6. Safety Information

Do not install this appliance in a bedroom or bathroom regardless of the room size.

- Keep young children away from the appliance when in use, and always use a fireguard in front of the appliance when in use, and where children could reach the flames.
- When in use, make sure there are no flammable materials close to the flames of the Appliance.
- Do not use this appliance if it is leaking gas. Never check for gas leaks with a naked flame or a spark, as this is extremely dangerous.
- If there is an apparent gas leak (smell of gas), close the control valve on the appliance and close the gas at the isolation valve/gas cylinder. Make sure there are no naked flames within 5 meters of the appliance and check for leaks as detailed below.
- To check for a gas leak, use a brush dipped in a soapy water solution (e.g., water with dish-washing liquid added) and apply the solution to the joints in the system. With the gas supply switched on, if there are bubbles there is a leak. If there is a leak, then turn off the gas supply at the isolation valve/gas cylinder.
- Call a Registered Gas Installer to examine the appliance and do not use the appliance until the service technician has declared that it is safe to do so.
- Should you suspect a leak at the gas cylinder (outside the house) then apply the soapy water solution to the visible joints such as where the regulator fits into the cylinder or where the regulator fits into the flexible hose, or the joints on the manifold if there is one fitted. If there is a leak, within the gas line then a bubble or bubbles will form. If you are unable to stop the leak at this point, then turn off the gas cylinder valve/s and call a Registered Gas installer to correct the fault.
- As with leaks inside the premises do not use the appliance until the Registered Gas Installer has declared that it is safe to do so.
- This appliance is fitted with an Oxygen Depletion Sensor and a Flame Failure Device, both of which are built into the Pilot Light Assembly. See figure 2. Do not interfere with, remove or modify these sensors.
- Do not place stones or any other objects against the Pilot Light Assembly, as this will prevent these sensors working correctly.
- Do not remove the model rating plate that is attached to your appliance. This contains important information in addition to the Model Number of the unit & Date of Manufacture, which the manufacturer will require should you need to make a Warranty Claim.
- In the event of a burn back, where the flame burns back to the jet, (generally the flame will make a noise a bit like a blow torch operating) immediately turn off the gas supply at the control valve.
- After ensuring the flame is extinguished, wait 60 seconds before re-lighting the appliance in the normal manner. Should the appliance again burn back, close the control valve and call a Registered Gas Installer to examine the appliance.
- Do not use the appliance again until the Registered Gas Installer has declared that it is safe to do so.

- Never try to move any of the fuel effect (stones/chips) whilst they are hot or whilst the grate is lit.
- Users should become familiar with the normal flame patterns of the unit. Anything abnormal, switch the appliance off at the Control Valve. Wait 60 seconds and relight. If the abnormality continues, call a Registered Gas Fitter to examine the appliance.
- adjoining rooms may be added together, to be checked against the Legal Minimum Room Size.
- Where there is an existing gas appliance in the room (without a flue) then the heat inputs of both appliances must be added together to establish the Legal Minimum Room Size.
- The strict rule to be applied is that if the total installed heat input of the non flued appliances is greater than 0.25MJ/Hr per m³ of room volume (4m³ per MJ/hr of heat input) then Permanent Ventilation is required.
- In the event of an unexpected automatic shutdown of the Appliance, that is not as a result of an empty gas cylinder, immediately open the doors & windows in the room, as it may be an indication of insufficient ventilation.

7. Ventilation Requirements

Do not install this appliance in a bedroom or bathroom regardless of the room size.

- This appliance may only be used in a well-ventilated area for the efficient performance of the appliance and the safety of the occupants of the area in which it is used. Take careful note of the following ventilation requirements.
- Where installed in a living room area, the Legal Minimum Room Size(without the need for additional permanent ventilation) is given under the technical data section on page 3.
- Where the room is smaller than this Legal Minimum Room Size, permanent ventilation, with at least the area of Permanent Ventilation given under Technical Data on page 3, must be installed. One opening to be at the high level and one at low level. This Permanent Ventilation must be permanently fixed in the open position and must be to the outside and not another room.
- Note that windows that are opened are not deemed to be Permanent Ventilation.
- For open plan layouts where there is a permanently open arch or passageway leading to an adjoining room, which cannot be closed, the volume of the 2

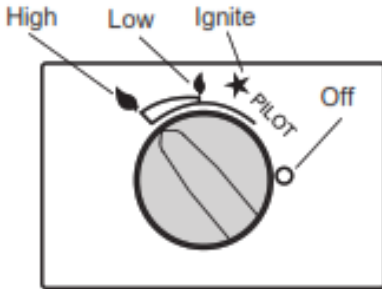
8. Gas Grate Installation

- LPG models require an Inlet Working Pressure of 2.8Kpa and a burner pressure as given on Page 3, Technical Data.
- NG models require an Inlet Working Pressure of 2.0Kpa and a burner pressure as given on Page 3, Technical Data.
- A suitable LPG regulator that complies with the requirements of SANS 1237 must be installed onto the gas cylinder. (LPG models only)
- It is recommended that soft drawn copper pipe be used according to the requirements of SANS 10087-1, to connect onto the gas grate.
- Before lighting the Appliance for the first time ensure that there are no gas leaks and that a Pressure Test is done.

8.1 Setting Pressures

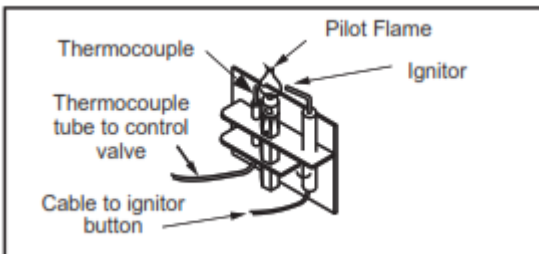
- For correct set up of gas pressures refer figs 3 & 4 & below.
- Remove the plastic Control Valve Cover by sliding it off the Control Valve from the front of the Valve.
- When needed, the Control Valve Knob can be slid off its spindle to gain access to the adjustment points. Be cautious when removing the Control Valve Knob, not to lose the small steel plate that secures it against the spindle.
- To test/set Inlet Working Pressure, remove the screw (Fig 3 Point A) put the connection from your manometer/U tube onto this test point. Light the appliance and set the burner to maximum setting. Adjust the regulator on the gas supply to achieve the required Inlet Working Pressure.
- Note when the Gas Grate is switched off at the grate's control valve, this test point can be used to pressure test the gas line coming into the grate for leaks.
- If you cannot achieve the required Inlet Working Pressure, there is a problem with inadequate gas supply.
- When the Inlet Working Pressure is set correctly, remove the manometer/U Tube, replace and tighten the Inlet Pressure Test Point screw.
- To set the Burner Pressure, loosen, but do not remove, the small screw at the Burner Pressure Test Point (fig 4-point B) Connect your manometer/U tube to this point.
- Light the appliance and set the burner to maximum setting.
- Adjust the Burner Pressure at maximum to the value given in the technical data on page 3, by turning the big brass screw (Fig 3 Point C). Turning clockwise will reduce the burner pressure, turning anticlockwise will increase it.
- When this is set correctly, turn the Control Valve to minimum setting. Look at the flame height. The client will want good variability between the maximum flame height (just been set) and minimum. Turn the small brass screw (Fig 3-point D) to set the minimum flame setting to give this variability. When these pressures are set, remove your manometer/u tube. Retighten the screw.

Fig. 1



View of Control Knob positions. It is shown in the full-on position. Be aware that to turn it to the ignite position it is necessary to push the knob in before attempting to turn it. You will find it is also required to hold the knob in the pushed in position for approximately 15 to 20 seconds before the pilot burner will remain on.

Fig. 2



View showing the ignitor/pilot flame assembly situated on the right-hand side of the burner tray. Refer to section 6 for information regarding these items

Fig. 3

NGC VALVE DETAILS

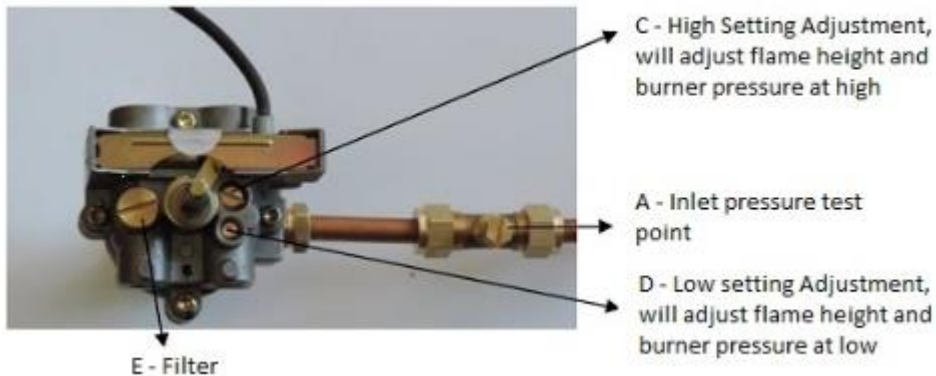


Fig. 4

F - Thermocouple connection to magnetic valve



8.2 Setting Fuel Effect.

See Fig 5.

Infiniti Grates can be set up as follows:

- Leave base plate empty of fuel effect to give a matt black effect.
- Place small white/black stone chips around BUT NOT OVER the burner. Placing these chips in the flames of the burner can cause them to shatter/ break down. Hot pieces may exit the grate at speed if these chips are placed directly into the flame path.
- Place white stones around and/or over the burner, to give a single layer of stones in the required areas. These white stones do not shatter/breakdown when subjected to the heat of the flame.

DO NOT obstruct the air slot at the rear of the grate with stones/stone chips, as it will impede airflow through the slot and distort the flame effect.

Figure 5 - Fuel Effect options

A) Black



B) Stone/Chips around the burner



C) Burner covered with stones



9. Lighting the Grate

- If at any time during the igniting process, or during use, you smell gas, immediately turn off the gas supply to the appliance, at both the Control Valve and the Isolation Valve, and do not use the appliance until it has been checked for leaks as described in Section 6.
- It is preferable that this is done by a Registered Gas Installer.
- The Appliance is fitted with a Piezo Ignitor built into the Control Valve which automatically ignites the gas grate when the control valve is turned to the ignite position and does not require the use of a lighter or matches.
- Check that the gas supply/isolation valve to the gas grate is turned on.
- Refer figs 1 & 2. Push in the control valve and turn firmly anticlockwise to the ignite position, whilst holding the knob pushed in. This should ignite the pilot burner. Hold the knob in the pushed in position for approximately 15 to 20 seconds, whilst the pilot flame warms the safety feature. When you release the knob, the pilot should stay alight. (if not go through this sequence again).
- Once the pilot is lit and running, ignite the burner by turning the control valve anticlockwise to high setting. You do not need to push in to adjust flame heights, only when you are initially lighting the pilot light.
- Once the main burner is burning well, you can adjust the heat output/flame size by adjusting the control valve to the required flame height.

9.1 Lighting the Grate Manually

- In the event that the built in Piezo Ignitor does not properly ignite the Appliance, then a lighter or match may be used.

- Check that the gas supply to the grate is turned on. Hold the flame from the lighter/match to the LHS of the pilot light (fig2), Push in the control valve and turn firmly anticlockwise to the ignite position, whilst holding the knob pushed in.
- This should ignite the pilot burner. Hold the knob in the pushed in position for approximately 15 to 20 seconds, whilst the pilot flame warms the safety feature. When you release the knob, the pilot should stay alight. (if not go through this sequence again)

10. Turning off the Grate

- To turn off the Grate simply push in the Control Valve Knob and turn in a clockwise direction to the Off Position.

11. Care & Maintenance

- It is good practice to remove dust from the grate and the fuel effect (if fitted). Stones can be brushed off with a soft brush and replaced onto the grate.
- Stone chips and stones (if these are discoloured) can be washed in warm soapy water and then rinsed clean. Allow the stones/stone chips to dry thoroughly before replacing them on the grate. If water remains in the stone/ stone chips, the heat of the flame will turn the water into steam and can shatter the stones/stone chips with explosive effect.
- It is recommended that this appliance is serviced annually by a Registered Gas Fitter. The Gas Fitter should check the safe & efficient operation of the gas grate as well as the soundness of the gas line. It will make the appliance work better, give you more heat and ensure the safe functioning of this appliance.

- Before undertaking and cleaning or maintenance work on this Appliance , make sure it is not hot and the isolation valve is turned off.

12. Building in the Classic Firebox

- The Infiniti Fires Classic Fire does not require or operate with a flue.
- It is recommended to have the firebox on site while building work is being done, to verify exact sizes.
- Before building the steel firebox into position, examine the firebox and the gas grate for the position of the gas inlet and allow for gas pipe access through the side or rear wall of the firebox in the most suitable position.
- The firebox does get very hot during operation and is designed to be built into a non-combustible structure to house it. Typically, this will mean the construction of a masonry chimney breast or similar.
- The Classis Firebox is supplied with a roll of fibreglass insulation. This insulation needs to be used on the sides, rear and top of the firebox, to go between the steel of the firebox and the masonry structure. This will minimise heat losses from the firebox into the brickwork, improving the efficiency of the fire and enable some expansion and contraction of the firebox with heat.
- The firebox requires a solid, stable and level masonry base beneath it. DO NOT put insulation between the base of the firebox and this masonry base. The Classic Firebox is not a structural element designed to carry the weight of a wall. Any masonry or similar structure built above the firebox will need to be supported by concrete lintels or similar, to carry this weight into the surrounding brickwork.
- Finish off the front wall of this masonry structure, such that the built brickwork or plaster work touches the rear of the steel frame going around the front of the firebox.

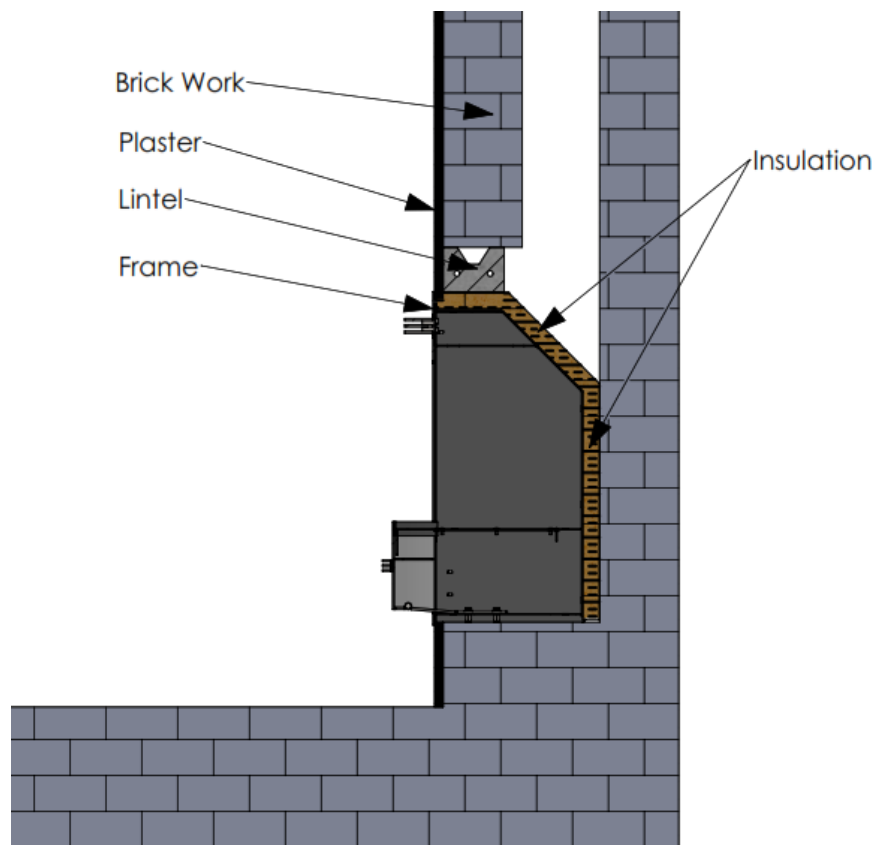
- If the masonry work is going to be cleaned with mortar lift or similar, protect the firebox from contact with this cleaner, as it may cause damage to the firebox, grate or optional frame.

- On completion of building clean the firebox with warm water and mild soap. Allow it to dry thoroughly and paint with the tin of paint supplied with the unit.

13. Fitting of Optional Frames

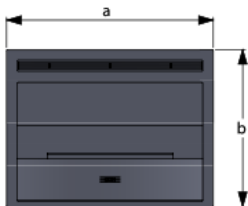
- The optional frame styling choices are easily fitted to the firebox after installation of the firebox into a non-combustible structure.
- Remove the louver from the top of the Firebox. It lifts up and out.
- Slide the optional frame chosen, such that the 4 lugs provided on the frame (2 on each side) slide over the pre-cut slots provided on each side of the firebox, behind the louver and door.
- Position the frame firmly against the wall and secure in position through the slots in the 4 lugs, using the pop rivets supplied.
- Refit the top louver.
- Fit the door supplied with the frame, using the hinges attached to the firebox. Adjust the door hinges (the bolt positions are slotted to give some play) to the correct position before tightening the securing bolts.
- It is advisable to fit the door and frame before fitting the gas grate.

Fig. 6 – Typical Installation Drawing

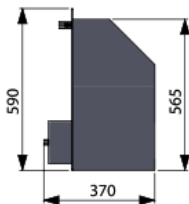


14. Schematics

CLASSIC SINGLE SIDED

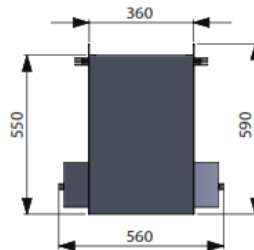


Standard box

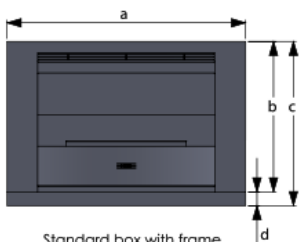


Side view

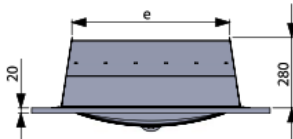
DOUBLE SIDED



Side view
For front
dimensions
refer to
Flue-Less
Gas Boxes



Standard box with frame



Plan view with frame

700 Box Size	a	b	c	d	e
Standard Box	775	590	N.A.	0	700
Deluxe frame	935	595	N.A.	0	700
Extra Wide Frame	1190	595	N.A.	0	700
Wraparound Frame	1165	618	672	54	700
1000 Box Size	a	b	c	d	e
Standard Box	1075	590	N.A.	0	1000
Deluxe frame	1238	598	N.A.	0	1000
Extra Wide Frame	1455	621	N.A.	0	1000
Wraparound Frame	1460	621	675	54	1000

15. Fault Finding

No spark onto
Pilot Light head

Electrical cable has come off spark plug. Refit.

Electrical current to spark plug is earthing elsewhere. Trace electrical cable and check it is not earthing onto copper pipe/grate. Check dirt or a stone chip is not earthing the pilot light to the grate.

Spark Plug gap on the pilot light head is too big or is not throwing the spark onto the EDGE of the gas pilot head jet. Adjust the spark plug top with needle point pliers to create spark just off the gas exiting the pilot light head.

Pilot Light does
not light

Gas is switched off, open bottle & cut off valve(s)

Stale gas or air is in the gas pipes. Bleed off stale gas/air by either;

Holding in the control valve at the pilot light position to bleed stale gas/air through the pilot. Check periodically if pilot will light using the control valve or a lit match.

OR

Holding a flame (gas lighter, lit taper) against the thermocouple, then switching on the grate to allow gas to the burner. Once gas comes through it will light. Be VERY cautious with this method.

15. Fault Finding - Continued

<p>Pilot light does not light</p>	<p>Pipe or inlet to grate has blockage. Check grate is live by removing the filter cover, pushing in the gas control valve to the pilot position. Filter will be blown out by gas, if grate is live. Thereafter you will hear if gas is flowing. If no gas check gas connections onto grate/gas piping.</p> <p>Use a U tube on the Pressure Inlet test point. At standing pressure, it should be about 30-32 Mbar and at running pressure 28 Mbar. How the pressure reads will tell a lot.</p>
<p>Pilot lights but does not stay on</p>	<p>Gas flame out of pilot head is too small to heat thermocouple. Clean pilot head, check gas inlet pressure is about 32 Mbar.</p> <p>Magnetic Valve/Thermocouple connection is loose. Tighten nut at rear of valve where the thermocouple connects into control valve.</p> <p>Bottle low on gas or cut off valves mostly closed. Check gas bottle is full /valves are open.</p> <p>Blockage in gas line/onto grate. Check joints, gas flow.</p>
<p>Flame is burning very yellow</p>	<p>Gas bottle old. Propane has burnt off, now burning principally Butane. Swap Bottle</p> <p>Inadequate air supply to venturi. Check and open supply.</p>
<p>Heavy odour from grate</p>	<p>Ditto both comments under Flame burning very yellow.</p> <p>Room is too small for grate, check on brochure/technical info.</p> <p>Convection chamber dusty. Remove louvre/clean, Clean below grate.</p> <p>White stones piled too high. Should be at most single layer.</p> <p>Fuel effect has dust/dirt in it. Remove clean & put back.</p> <p>Maximum burner pressure set too high. Put U tube on burner pressure point and reset pressure.</p> <p>Fuel effect other than that supplied by Infiniti Fires. Remove fuel effect.</p> <p>Venturi has cobweb/dirt in it. Clean venturi</p> <p>Client has fresh paint near grate. Advise not to use grate till paint cures.</p> <p>Paint has waxed wooden floors with fresh wax. Advise to stop waxing floors a couple of weeks before wanting to use the grate for winter and do not re-wax in winter.</p>

GAS FIRES WARRANTY

Infiniti Fires warrants the soundness of their Gas Fires for the period after purchase as detailed below.

Steel Fire-boxes and Frames	5 years
Gas Grates	2 years

To validate the warranty, the customer must produce;

- Proof of Purchase, so that the purchase date can be verified.
- In the event the unit is an installed/fixed Gas unit a copy of the Certificate of Compliance Fixed gas units are legally required to be installed by a Registered Gas Fitter, licensed by SAQCC for the type of gas being used. It is a legal requirement that this Gas Fitter provide a Certificate of Compliance on completion of the installation. You should keep this COC safe in case needed in future.

OUR WARRANTY DOES NOT COVER

- Corrosion where the product has been installed in a location or manner such that, it is subject to water ingress or sea influence.
- Damage to the Appliance, where it has not been installed in compliance with its Instruction Manual
- Damage caused by the Appliance operating outside of its normal working state.

If a claim arises under this warranty, Infiniti Fires will, at its sole discretion either repair or replace the affected unit.

As Infiniti Fires does not do the installation of these units, it accepts no responsibility for the installation thereof.

Infiniti Fires will not be responsible for any consequential damage arising from the use of its units.

Dealer's Stamp



Infiniti Fires

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