

# OPEN FIREPLACES

INSTALLATION AND OWNERS MANUAL

### **DOUBLE SIDED UNITS**



IMPORTANT: Read all instructions carefully before starting installation. Failure to follow these instructions may result in a fire hazard and will void the warranty.

### **WARNING**



**Fire Risk.**For use with solid wood fuel only.
Other fuels may over fire and generate poisonous gases (i.e. carbon monoxide).

INSTALLATIONS TO COMPLY WITH AS/NZS2918:2018 AND WILL REQUIRE A BUILDING CONSENT



If the information in these instructions is not followed exactly, a fire could result causing property damage, personal injury, or death.



- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Do not over fire If appliance or chimney connector glows, you are over firing. Over firing will
  void your warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause a house fire.

## Introduction and contents

Thank you for purchasing a Jetmaster fireplace. Please read this manual carefully to ensure the correct installation.

There are different methods of installing a Jetmaster fireplace depending on the unit size. Before conducting any works, please go to the relevant section of this installation manual.



Warning! Please read these instructions carefully. Failure to adequately follow the instructions can result in serious injury or death.

### Contents

Page	Section	Information	
2-3	1. Getting started		
4	2. Components and specifications	Unit and Gather	
5	2. Components and specifications	Surround, Cowl, Logpan and Screen	
6	3. Timber framing specs	700 and 1050 DSU	
7	4. Clearance requirements	Hearth	
8	4. Clearance requirements	Enclosure construction	
9	5. Flue & Chimney requirements	General requirements	
10	5. Flue & Chimney requirements	Installation	
11	6. General use	Attaching firescreen, lighting a fire	
12	6. General use	Fuels, Cleaning, Maintenance & Safety	
12	AS/NZS 2918:2018	General notes	

# **Install Guide**

### 1. Getting Started

### A. Design and Installation Considerations

Consideration must be given to:

- Safety
- Convenience
- Traffic flow
- Chimney and flue requirements

It is a good idea to plan your installation on paper, using exact measurements for clearances and floor protection, before actually beginning the installation. If you are not using an existing chimney, place the appliance where there will be a clear passage for a factory-built listed chimney through the ceiling and roof.

We recommend that a qualified building inspector and your insurance company representative review your plans before and after installation.

If this appliance is in an area where children may be near it is recommended that you purchase a decorative barrier to go in front of the appliance. Remember to always keep children away while it is operating and do not let anyone operate this appliance unless they are familiar with these operating instructions.

### **CAUTION**

Check building codes prior to installation.

- Installation MUST comply with local, regional, state and national codes and regulations.
- Consult insurance carrier, local building, fire officials or authorities having jurisdiction about restrictions, installation inspection, and permits.



Asphyxiation Risk.



- Do NOT connect this appliance to a chimney flue servicing another appliance.
- Do NOT connect to any air distribution duct or system.

May allow flue gases to enter the house.

NOTICE: JETMASTER ASSUMES NO
RESPONSIBILITY FOR THE IMPROPER
PERFORMANCE OF THE APPLIANCE
SYSTEM CAUSED BY:

- Inadequate draft due to environmental conditions
- · Down drafts
- · Tight sealing construction of the structure
- · Mechanical exhausting devices
- · Over drafting caused by excessive chimney heights
- Ideal performance is with height of chimney minimum 4.6 metres as per AS/NZS 2918:2018.

### B. Fire Safety

To provide reasonable fire safety, the following should be given serious consideration:

- Install at least one smoke detector on each floor of your home to ensure your safety. They should be located away from the heating appliance and close to the sleeping areas. Follow the smoke detector manufacturer's placement and installation instructions, and be sure to maintain regularly.
- 2. A conveniently located Class A fire extinguisher to contend with small fires resulting from burning embers.
- 3. A CO detector should be installed in the room with the appliance.
- A practiced evacuation plan, consisting of at least two escape routes.
- 5. A plan to deal with a chimney fire as follows: In the event of a chimney fire:
  - a. Evacuate the house immediately
  - b. Notify the fire brigade.

### C. Negative Pressure



### WARNING

### Asphyxiation Risk.



- Negative pressure can cause spillage of combustion fumes, soot and carbon monoxide.
- Appliance needs to draft properly for safety.

Negative pressure results from the imbalance of air available for the appliance to operate properly. It can be strongest in lower levels of the house.

Causes include:

- Exhaust fans (kitchen, bath, etc.)
- · Range hoods
- Combustion air requirements for furnaces, water appliances and other combustion appliances
- Clothes dryers
- Location of return-air vents to furnace or air conditioning
- Imbalances of the HVAC air handling system
- Upper level air leaks such as:
  - Recessed lighting
  - Attic hatch
  - Duct leaks

To minimize the effects of negative air pressure:

- Ensure adequate flow of outdoor air for all combustion appliances and exhaust equipment
- Ensure cental heating and air conditioning return vents are not located in the vicinity of the appliance
- Avoid installing the appliance near doors, walkways or small isolated spaces
- Recessed lighting should be a "sealed can" design
- Attic hatches weather stripped or sealed
- Attic mounted duct work and air handler joints and seams taped or sealed
- Basement installations should be avoided



### **WARNING**



#### Fire Risk.

JETMASTER VIC disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged appliance.
- Modification of the appliance.
- Installation other than as instructed by JETMASTER VIC.
- Installation and/or use of any component part not approved by JETMASTER VIC.
- Operating appliance without fully assembling all components.
- Do NOT Over fire If appliance or chimney connector glows, you are over firing.

Any such action that may cause a fire hazard.



### **WARNING**

#### Fire Risk.



Inspect appliance and components for damage. Damaged parts may impair safe operation.

- Do NOT install damaged components.
- Do NOT install incomplete components.
- Do NOT install substitute components.

Report damaged parts to dealer.

### D. Tools And Supplies Needed

Before beginning the installation be sure the following tools and building supplies are available:

Reciprocating saw Flat blade screwdriver Electric drill and bits

Hand saw Plumb line Framing material pliers Safety glasses

High temp caulking material Level

Hammer Tape measure

Gloves Misc. screws and nails Phillips screwdriver 10mm socket or wrench

Framing square 1/2-3/4 in.

R3.5 Fibreglass insulation (if required)
75mm Hebel Powerpanel (if required)

Touch up paint - Stove bright satin black

### E. Inspection of Appliance and Components

- Remove appliance and components from packaging and inspect for damage.
- Report to your dealer any parts damaged in shipment.

Due to the nature of thick welded steel, it is normal and expected for some imperfections and slightly out of square components. It is recommended to not begin construction of cavity or flue penetration points until after the unit is in place on site.

Surface scratches can and will occur during installation - it is normal to expect to touch these visible surfaces up with Stove Bright Satin black. Deep scoring may require a light sand and respray. This is normal and not covered by warranty.

• Read all the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.

# 2. Components and specifications - double sided



MODEL	Α	В	С	D	E	F
700 double sided	850	800	610	700	300	220
1050 double sided	1205	1150	600	770	450	220

Gather must be securely bolted to the unit

Optional 3 and 4 sided 70mm surrounds are available to fill in between unit and outer Hebel box. Add 40mm to B measurement for coverage

Fitting instructions on following page.

<sup>•</sup> Measurements are in mm and provided as a reference only.

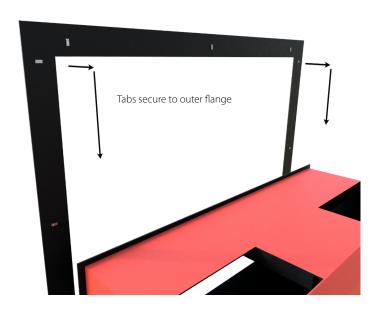
Due to the nature of thick welded steel, it is normal and expected for some imperfections and slightly out of square components. It is recommended to not
begin construction of cavity or flue penetration points until after the unit is in place on site.

# 2. Components and specifications

### Optional 70mm surround

The surround should be installed before sliding the unit into it's final position.

Lift the surround above the fireplace outer flange and locate the external tabs over the flange and lower into place. Ensure the top folds clip on securely.



### Bird cowl

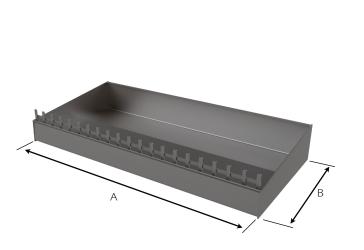


For solid fuel applications only, a rotating bird cowl will assist in preventing the effects of downdraft as it turns with the direction of wind.

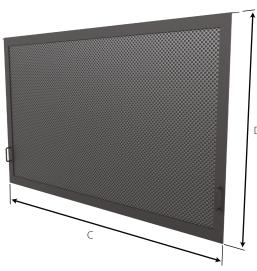
Other solid fuel cowls may be desired to achieve a visual design and such cowls can be used but must not restrict airflow from the flue pipe casings.

For gas applications an AGA approved cowl must be used.

Logpan



### Firescreen - optional

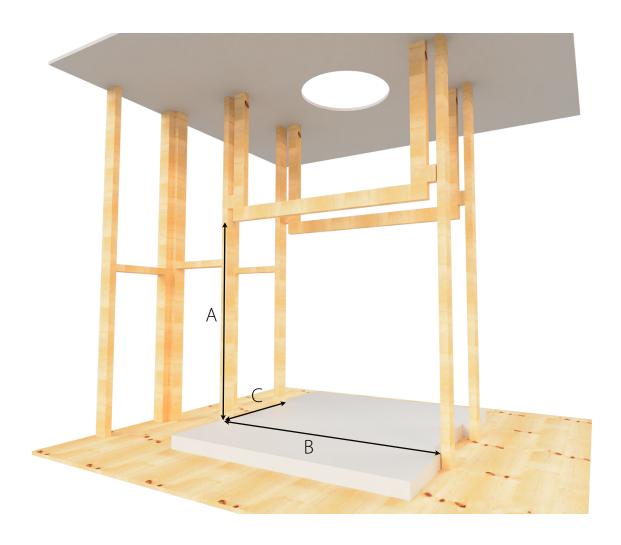


MODEL	Α	В	С	D
700 double sided	685	533	695	500
1050 double sided	1035	530	1045	590

- Measurements are in mm and provided as a reference only.
- Due to the nature of thick welded steel, it is normal and expected for some imperfections and slightly out of square components. It is recommended to not begin construction of cavity or flue penetration points until after the unit is in place on site.

# 3. Timber framing specification

UNIT	A - HEIGHT	B - WIDTH	C - DEPTH
700 DSU	1325	1050	610
1050 DSU	1395	1405	700



#### Note:

Timber framing should be constructed using normal framing methods. Image above is an example only. Do not install finishing materials around the cavity until after the fireplace has been installed. Frame height is from top of the 100mm hebel hearth base. Refer to the following page for hearth requirements

# 4. Clearance requirements - Hebel installation double sided

#### 1050 DSU unit - Hearth

A minimum 610mm deep x 1330mm wide x 100mm thick floor protector (Hebel blocks) should be used under the appliance, a Minimum 1450mm wide x 500mm deep x 100mm thick floor protector (Hebel blocks) must be used in front of the appliance base on both sides when installing the appliance (see joint AS/NZS 2918:2018 3.3.2).

The floor protector should extend 500mm in front of each of the appliance openings and be placed centrally in the 1450mm width. 100mm thick floor protector projection can consist of multi-layered non-combustible materials.

### 700 DSU unit - Hearth

A minimum 610mm deep x 1150mm wide x 100mm thick floor protector (Hebel blocks) should be used under the appliance, a Minimum 1200mm wide x 500mm deep x 100mm thick floor protector (Hebel blocks) must be used in front of the appliance base on both sides when installing the appliance (see joint AS/NZS 2918:2018 3.3.2).

The floor protector should extend 500mm in front of each of the appliance openings and be placed centrally in the 1200mm width. 100mm thick floor protector projection can consist of multi-layered non-combustible materials.

The Thermal resistivity of the floor protector is 0.65m<sup>2</sup>.K/W for 100mm thick Hebel Blocks. The Thermal resistivity for 75mm PowerPanel is 0.59m<sup>2</sup>.K/W

Minimum thickness can include finishing material as long as the total thermal resistivity is not less than 0.65m<sup>2</sup>.K/W

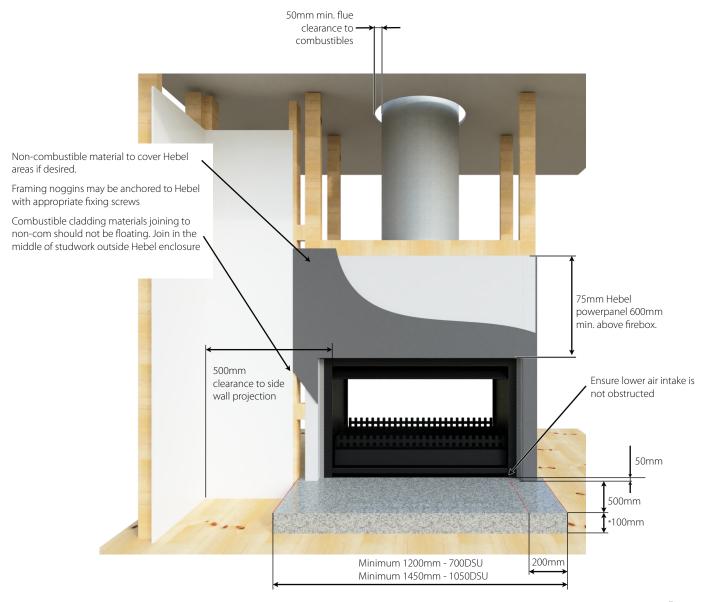


Fig 3.6

# 4. Clearance requirements - Hebel installation double sided

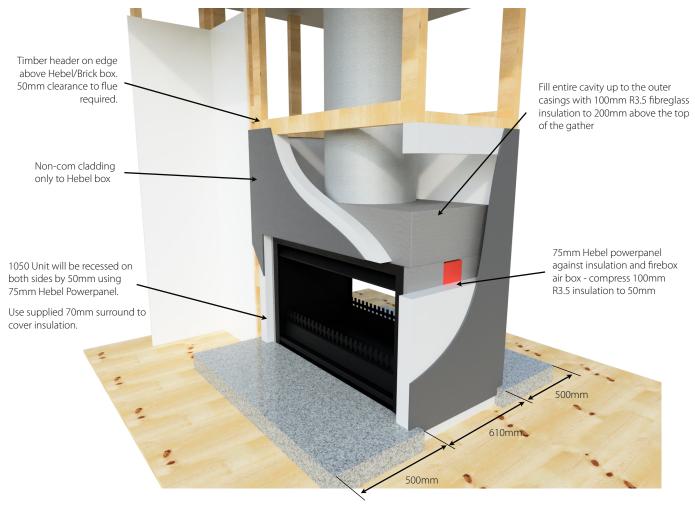


Fig 3.7

### The appliance and Flue Combination should be installed at the following clearances:

- The mantle shelf clearances should be 1000mm above as per clause 3.4.1.3(b) of AS/NZS 2918:2018
- The fronts and sides of enclosure must consist of 75mm Hebel PowerPanel.
- The Hebel PowerPanel sides of the enclosure can be placed against the appliance with 100mm R3.5 insulation compressed to 50mm either side of the air box between the PowerPanel and the appliance.
- The Hebel PowerPanel front walls must be installed minimum of 25mm from the appliance gather with 100mm R3.5 insulation compressed to 25mm between the appliance and Hebel PowerPanel.
- The appliance front wall, the gather, sides and all other external parts of the appliance must be wrapped in 100mm R3.5 insulation between the PowerPanel enclosure up to the height of 200mm above the top of the gather.
- The Flue penetration through the ceiling must have a 50mm gap in all directions around the outer casing of the flue from combustibles and minimum ventilation of 158,788mm2 through the ceiling.
- The front walls of the enclosure must be made of Hebel PowerPanel to a height of 1280mm above the hearth and must extend to 75mm either side of the appliance.
- The first internal wall noggin at the front of the appliance can sit on the top of the PowerPanel enclosure.
- Internal Noggins must not be closer than 50mm from the outer flue casing.
- The External side wall of the PowerPanel Enclosure can be placed against a combustible wall.

# 5. Flue & chimney requirements

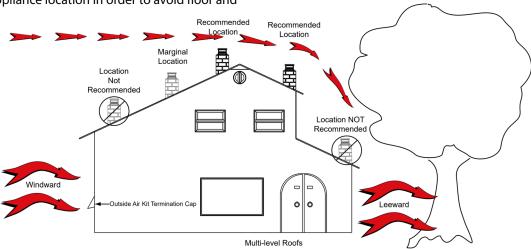
Location of the appliance and chimney will affect performance. As shown in Figure below the chimney should:

- Install through the warm space enclosed by the building envelope. This helps to produce more draft, especially during lighting and die down of the fire.
- Penetrate the highest part of the roof. This minimizes the affects of wind turbulence and down drafts.
- Consider the appliance location in order to avoid floor and

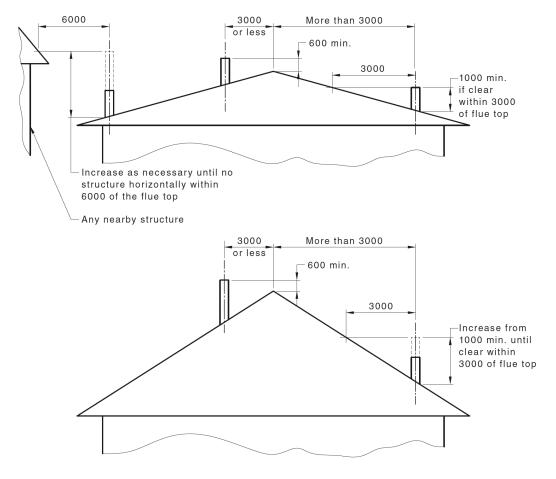
ceiling attic joists and rafters.

• Locate termination cap away from trees, adjacent structures, uneven roof lines and other obstructions.

Your local dealer is the expert in your geographic area and can usually make suggestions or discover solutions that will easily correct your flue problem.



Minimum height of flue system exit Solid fuel AS/NZS 2918:2018



DIMENSIONS IN MILLIMETRES

### NOTICE:

- Chimney performance may vary.
- Trees, buildings, roof lines and wind conditions affect performance.
- Chimney height may need adjustment if smoking or overdraft occurs.

**NOTICE**: Locating the appliance in a basement or in a location of considerable air movement can cause intermittent smoke spillage from appliance.

Do not locate appliance near

- Frequently open doors
- Central heat outlets or returns

Jetmaster

## 5. Flue & chimney requirements cont...

**Existing chimneys** should be inspected and cleaned by a qualified professional prior to installation. The chimney must not have cracks, loose mortar or other signs of deterioration and blockage. Jetmaster recommends a certified professional or a technician, under the direction of a certified professional.

**Single skin flue** (stainless steel) must be completely enclosed with single skin brickwork, concrete, or autoclaved aerated concrete block. A chimney plate will be used to weather seal the chimney.

**Twin skin flues** (stainless steel inner, and galvanised outer) can either be left exposed or enclosed with stud walls and sheet plaster or timber. A minimum of 50mm clearance must be maintained between the outer flue and <u>any</u> combustibles within the chase or ceiling cavity. **(Fig 5.1)** 

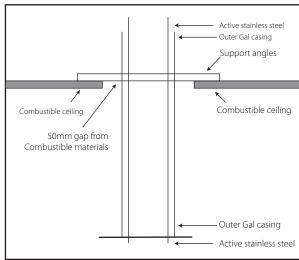


Fig 5.1 Ceiling penetration clearances

Position an active starter flue with two female ends to gather to allow second length to have crimp facing down. (Fig 5.2)

Glass tape may be required to ensure a snug fit.

The outer flue is then installed outside active flue with crimp facing up to ensure water penetration on flue above roof runs out.

Rivet active flues together at crimped joins.

Fix outer non-active flues to active inner flues use  $3 \times 25$ mm self-tapping screws through outer flue at bottom at each join and on top at each join. As an alternative, rivet  $4 \times 25$ mm conduit saddles at each join top and bottom.

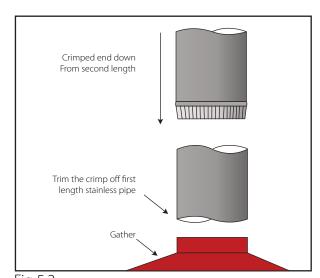


Fig 5.2

### Cowl

For solid fuel applications only, a rotating bird cowl will assist in preventing the effects of downdraft as it turns with the direction of wind. (Fig 5.3)

Other solid fuel cowls may be desired to achieve a visual design and such cowls can be used but must not restrict airflow from the flue pipe casings.

For gas applications an AGA approved cowl must be used.



Fig 5.3



### 6. General use

### Attaching optional fire screen

To attach the firescreen, **1.** place either the left or right side hook in between the outer flange and the lowest part of the upper deflector where it meets the flange. **2.** Raise the opposite side to the top corner of the upper corner to locate the alternate hook inside the flange. **3.** Lower into place. For removal, follow the opposite of this instruction.



### **General usage info**

### How to use the wood fireplace

Your Jetmaster fireplace is designed not to spill smoke and by following a few instructions you will achieve optimum heat output, convenience and fuel economy. Please note that during the first fire the paint goes through a bonding process called curing which may emit odours. This is normal and it is recommended to open windows to outside to allow the fumes to disappate.

### Lighting a fire

There are many different ways to successfully light and run a fire all of which require an even balance of the 3 elements of combustion. Fuel, Heat (ignition source) and Oxygen - if your fire is not operating cleanly it will be due to one of these elements being compromised. Jetmaster recommends the Home Heating Association website <a href="https://www.homeheat.com.au">www.homeheat.com.au</a> as a terrific resource for further information on tips and FAQ's on solid fuel troubleshooting.

- 1. Ensure the damper is in the full open position. Pull the handle on the left side towards you with the steel handle provided.
- 2. In firebox lay your fire lighters 10 to 15 centimetres apart, depending on the size of your firebox. Do not use newspaper as a fire lighter. On units that are installed with a dual spigot gather, it is recommended to light 2 fires directly underneath the two separate flues.
- 3. Add soft wood kindling in a criss cross pattern above the firelighters. Softwood kindling allows for fire to light quicker and burn hotter.
- 4. Light fire with match or gas lighter. Leave for 5-10 minutes maximum and do not leave unattended.
- 5. Load pieces of hardwood that are no wider than a drink can in a criss cross pattern.
- 6. After 30 minutes add the large pieces of hardwood. These pieces should be no bigger than a loaf of bread. You may attach your screen now if desired.
- 7. After 45 minutes you can adjust the damper to slightly slow the fire down. The amount you can close it will depend on the type of wood used and general weather conditions.

If the fire begins to spill smoke, adjust the damper to a more open position. Do not close the damper more than 50% when the fire is in operation. Once the fire is extinguished, closing the damper will reduce cold drafts and heat loss associated with the open flue.

Always leave a bed of ashes up to the centre crest of the logpan for ease of lighting and to prolong the life of and protect the logpan. Excess ashes should be removed when necessary, placed in a non-combustible container with a tightly fitting lid and moved outdoors immediately to a location clear of combustible materials.

#### **Fuels**

The quality of firewood is extremely important. How long a tree has been felled or dead for does not indicate how dry the wood is

The best way to dry wood is to split it and expose the inner core allowing the sun to dry the wood naturally.

Good wood merchants will split the wood for you, but may not season it for you.

The amount of you pay for your wood does not justify how dry the wood is. The only way to know how dry your wood is, is to use a moisture meter measuring from the inner core of the wood.

Only burn wood under 20% moisture. Anything over 20% and your wood heater will not work efficiently. The energy from the fire will be used to reduce moisture in your wood and not produce heat for your house.

Store your wood for at least 12 months after your have purchased it. Your wood should be at a perfect moisture level, of around 15 to 20%. Never burn treated wood or painted wood.

### Cleaning

The Jetmaster Log Pan is designed to give greater heat and fuel efficiency. For the duration of the cold season the Log Pan should never be emptied. The resulting bed of ash and coals from previous fires will soon become a heat bank generating more heat than the burning logs. This ash bed also insulates and greatly extends the life of the Log Pan. This is why an ash bed must be maintained at all times

When the level of the ash bed becomes too high, the top layer can be removed. Depending on frequency of use and quality of wood, this skimming procedure should not be required more than once or twice a Season!

To prevent chimney fires as well as enabling the chimney to draw properly, the chimney/flue should be swept at least once a season, subject to the quality of timber used in the fire.

#### **General Maintenance**

The visible parts of your Jetmaster can be cleaned with a damp cloth or soft brush. Should you wish you could repaint the unit with a heat resistant paint?

### Safety

The Jetmaster is a safety-tested unit, however, you must never leave an open fire unguarded. Jetmaster has a screen that is designed to prevent sparks leaving the fireplace and very resistant to being accidentally knocked over by young children.

## AS/NZS 2918 General notes

WARNING: THE APPLIANCE AND FLUE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH AS/NZS 2918 AND THE APPROPRIATE REQUIREMENTS OF THE RELEVANT BUILDING CODE OR CODES.

WARNING: APPLIANCES INSTALLED IN ACCORDANCE WITH THIS STANDARD SHALL COMPLY WITH THE REQUIREMENTS OF AS/NZS 4013 WHERE REQUIRED BY THE REGULATORY AUTHORITY, I.E. THE APPLIANCE SHALL BE IDENTIFIABLE BY A COMPLIANCE PLATE WITH THE MARKING 'TESTED TO AS/NZS 4013'.

ANY MODIFICATION OF THE APPLIANCE THAT HAS NOT BEEN APPROVED IN WRITING BY THE TESTING AUTHORITY IS CONSIDERED TO BE IN BREACH OF THE APPROVAL GRANTED FOR COMPLIANCE WITH AS/NZS 4013.

CAUTION: MIXING OF APPLIANCE OR FLUE SYSTEM COMPONENTS FROM DIFFERENT SOURCES OR MODIFYING THE DIMENSIONAL SPECIFICATION OF COMPONENTS MAY RESULT IN HAZARDOUS CONDITIONS. WHERE SUCH ACTION IS CONSIDERED, THE MANUFACTURER SHOULD BE CONSULTED IN THE FIRST INSTANCE.

CAUTION: THIS APPLIANCE SHOULD NOT BE OPERATED WITH CRACKED AND BROKEN COMPONENTS, e.g. GLASS PANELS OR CERAMIC TILES, MAY RENDER THE INSTALLATION UNSAFE.

WARNING: ANY MODIFICATION OF THE APPLIANCE THAT HAS NOT BEEN APPROVED IN WRITING BY THE TESTING AUTHORITY IS CONSIDERED AS BREACHING AS/NZS 4013.

WARNING: DO NOT USE FLAMMABLE LIQUIDS OR AEROSOLS TO START OR REKINDLE THE FIRE.

WARNING: DO NOT USE FLAMMABLE LIQUIDS OR AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHEN ITS OPERATING.

WARNING: DO NOT STORE FUEL WITHIN HEATER INSTALLATION CLEARANCES.

WARNING: OPEN AIR CONTROLS AND DAMPER WHEN FITTED BEFORE OPENING FIRING DOOR.

WARNING: FOR OPTIMUM PERFORMANCE FUEL MUST BE LOADED SO THE LOGS LAY "FRONT TO REAR" IN PREFERENCE TO LAYING ACROSS THE WIDTH OF THE FIREBOX. SPACES SHOULD BE LEFT BETWEEN THE LOGS TO ENABLE OXYGEN TO GET TO AS MUCH OF THE SURFACE OF THE FUEL AS POSSIBLE.

CAUTION: THIS APPLIANCE SHOULD BE MAINTAINED AND OPERATED AT ALL TIMES IN ACCORDANCE WITH THESE INSTRUCTIONS.

CAUTION: THE USE OF SOME TYPES OF PRESERVATIVE-TREATED WOOD AS A FUEL CAN BE HAZARDOUS.