

# *Studio stove, Studio oven and Oh-Ah*

## **Maintenance and Operating Instructions**



Visit [www.warmington.co.nz](http://www.warmington.co.nz) for specs, DWG's and PDF uploads of fires

**Fire, flue system and instructions to comply with AS/NZS 2918:2001**

Keep these Instructions for future reference. Ensure that you have the correct and current installation details for the Warmington fire

## For correct operation of your wood fire - follow these guidelines:

### **Burn control and operation:**

The air intake disc on the door controls the amount of air drawn into the stove & thus the combustion rate.

- When lighting the stove, the air control should be fully open (turn the air control anti-clockwise).
- Place paper or fire lighters into the base of the firebox.
- Arrange kindling on top of paper or firelighters, allowing air to move easily through the kindling.
- Light the fire around the base to ensure good ignition of paper or firelighters.
- Leave the door ajar 5 to 10 mm to aid with speedy ignition of the fire.
- When the fire is happily burning the main fuel loads can be placed into the fire, from the front to the rear in a lined pattern, ensuring that the flames can easily move through the fuel load (**max tested fuel load approx. 2.2kg**).
- Close the door to ensure a seal to the firebox. Once the fire is fully established and burning brightly the air supply can be considerably reduced to control heat output (and fuel consumption). Note, the air control is designed such that even when fully closed some air still enter the firebox. This keeps unwanted flue emissions to a minimum.

### **Removing ash:**

After using your fire for a few weeks, you will find ashes accumulate in the firebox. The ash can be removed easily through the fire door when the fire is completely out. The amount of charcoal in the ash is often a good indicator of how well you are operating the fire. If there is no charcoal and only very fine ash then you are doing an excellent job. If there is a lot of charcoal you may be turning the combustion air down too soon after refueling, or not raking the charcoal to the combustion air inlet, or turning the combustion air down too low to support efficient combustion, or all of the above. Warmington wood-burning fires work best when a small amount of ash is left (approximately 25mm deep) in the firebox after cleaning as this aids with stable burning. The ash should be placed in a non-combustible container with a tightly fitting lid and moved outdoors immediately to a location clear of combustible materials.

### **Cooking:**

Because the top of the fire is in direct contact with the flame, it offers a large cooking surface. Ideal for entertaining at home/holiday homes or farm cottages. If spillage occurs, clean the surface with a soft cloth and dish washing liquid and avoid scratching the surface.

### **Storing/drying fuel:**

The space below the firebox can be used as a wood storage and drying area. Damp wood is dried naturally while it is stored. Use dry timber preferably cut and stored under cover from the previous year.

## **PURCHASING THE FIREWOOD**

The quality of the firewood you burn can have a dramatic effect on the efficiency and operation of the heater. The main factors that affect the burning characteristics of firewood are moisture content, tree species and piece size.

The moisture content of the wood affects the rate at which burns and the efficiency of combustion. When trees are cut, wood moisture content ranges between 35 and 60 percent by weight. If you attempt to burn wood this wet, it will be hard to ignite, slow to burn and will hiss and sizzle in the firebox. A lot of energy will be consumed in boiling off the excess water that the efficiency of combustion and the heat to your home will be low, condensation and corrosion may be occurring in the flue and smoke may be causing problems to your neighbours. Properly seasoned wood ignites readily and burns efficiently.

*Firewood should be cut and split in the early spring and stacked under cover, with good ventilation, to be ready for burning when required. Look and check for cracks in the end grain as a sign of dry wood. The stacks of firewood should be in an open area so that air can circulate between them. During the summer, as warm breezes flow through the stacks, carrying away the evaporating water, the moisture content of the wood will fall to around 20 percent. At this moisture content the wood is ready for burning.*

Although the energy content of dry wood per kilogram is almost the same regardless of species, softwoods and hardwoods burn differently because of differences in density. Softwoods, such as pine, are less dense than hardwoods like gums, Manuka or ironbark. A denser wood will produce a longer-lasting coal bed, while a less dense wood will bring a fire to an optimum burning temperature more quickly.

The size of the firewood pieces affects the rate of combustion. Larger pieces ignite and release their energy more slowly than small pieces. Smaller pieces are better for short, hot fires and larger pieces are preferable for extended firing cycles. In general, commercial firewood dealers produce firewood in larger pieces than modern wood-burning appliances can handle. It is often necessary to split some of the wood again before using it.

Firewood harvesting can have an effect on native woodlands and a variety of threatened species. Dead standing and fallen timber provides habitat for numerous species of animals and birds. Wood heater operators should be encouraged to be sensitive about the source of their firewood. If collecting it privately, operators should leave some dead wood behind as it provides habitat for birds and animals.

**Maintenance - the chimney is to be cleaned annually or more frequently if required.**

**Chimney Maintenance:**

To clean the chimney, remove baffle plate inside the top of the firebox & close the door. With a ladder, access the roof and remove the cowl assembly. Make sure the door is closed on the fire & close air control (turn clockwise) to ensure soot etc. can fall into the firebox. With a chimney sweeping brush that suits the flue diameter, clean the flue ONLY from the top down. Remove soot/ash from the firebox. This is recommended to be done annually before each winter.

**Note: the chimney is to be cleaned annually or more frequently if required.**

**Firebox:**

Keep your stove clean by polishing all over with a soft cloth when unit is cool. In humid climates, more interior firebox corrosion will occur in the summer months than in winter. The stove's life can be greatly extended by cleaning the firebox interior at the end of winter and spraying with Stovebright high temperature black paint.

**Wetback (optional extra):**

On special order a wetback model can be supplied. This unit acts as a hot water booster, producing about 1kW. The wetback sits in the firebox. The inlet and outlet are at the fire back and require standard 25mm pipe connections to the threaded brass pipe of the wetback. Inlet and outlet pipes are at the same height permitting flow of water in either direction, but need to be correctly connected by the plumber.

## GENERAL INFORMATION ON PAINT & FINISHING

Information on the paint coating is on the web site:

[http://www.forrestpaint.com/stovebright/troubleshooting\\_guide1.html](http://www.forrestpaint.com/stovebright/troubleshooting_guide1.html)

**When lighting the fire for the first time:**

Ventilate the house during the first three times the stove is used. The paint on the stove will give off smoke heavy with carbon dioxide and has an odour. Without adequate ventilation, concentrations of smoke could irritate, or be upsetting. Babies, small children, pregnant women and pets should not be in the area due to these carbon dioxide fumes causing an imbalance in the air quality. Open doors and windows and use a fan if necessary. After these initial burns, the paint will be set and there should be no more smoke. Don't touch the surface, it will be soft and gummy during this phase. Once set, it will not be soft again.

Most stoves stop smoking after 3 burns. The first two should be at 250 F (121 C) for 20 minutes or about half a normal fire. Do not let the stove cool down significantly between burns. The last fire should be between 500 F (260 C) and 700 F (371 C) for at least 45 minutes. The point being, operate slowly without a hot fire. If the stove gets too hot too quickly, the paint will crack. Owners of stoves that have a door gasket should check with the stove dealer about leaving the door ajar during this process to keep the gasket from sticking to the jam.

Stoves with a cooler surface temperature and those that were previously painted with another colour will take longer to set. This process can usually be observed by the effect of the paint turning flat as the heat radiates out from hotter parts of the stove.

**Summary on Setting High Temp Pain:**

Read Stove Manufacturer instructions.

Babies, small children, pregnant women and pets should leave the area during the paint setting phase.

Ventilate well.

Paint surface will look "wet" and will smoke.

Do not touch paint surface during this process.

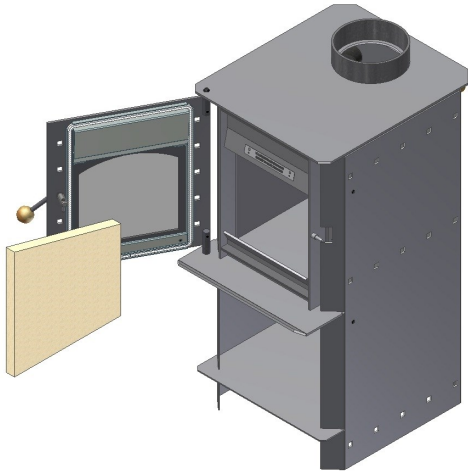
Set slowly with successive burns.

If you see signs of rust on your firebox, clean down with a green scotchbrite pad, wipe with damp rag and when completely dry, spray with Stovebright Matt black paint. Colours to match the Studio Stoves can be purchased from Warmington.

Please phone our customer services on:

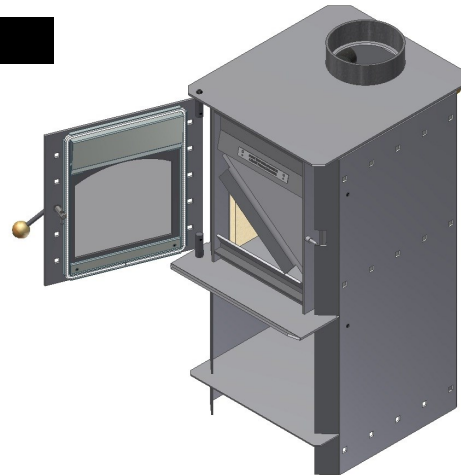
**FITMENT OF VERMICULITE BACK AND SIDES PANELS & BAFFLE ASSEMBLY (Clean air 2014 model)**

**STEP : 1**



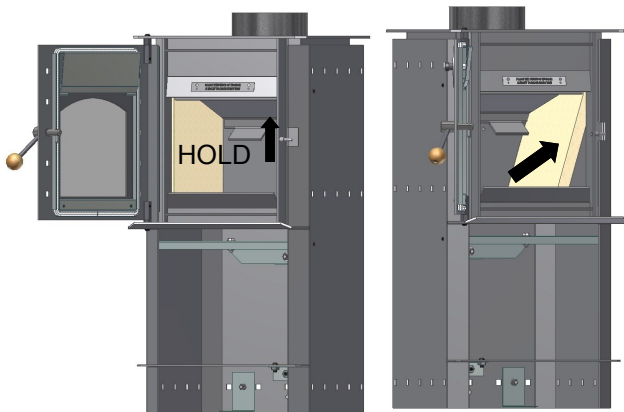
Place one vermiculite board side brick into the Firebox as shown above.

**STEP : 2**



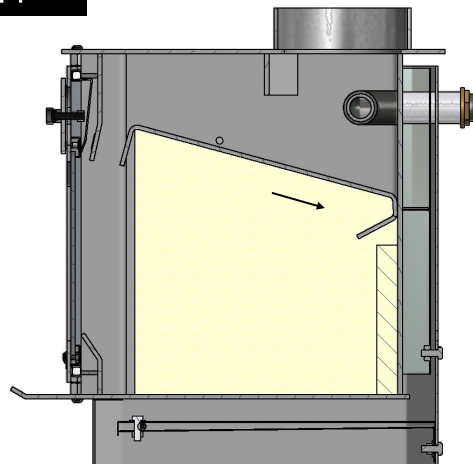
Put the steel baffle in on an angle through the door frame. Lift it up holding it horizontally resting on the one side bricks.

**STEP : 3**



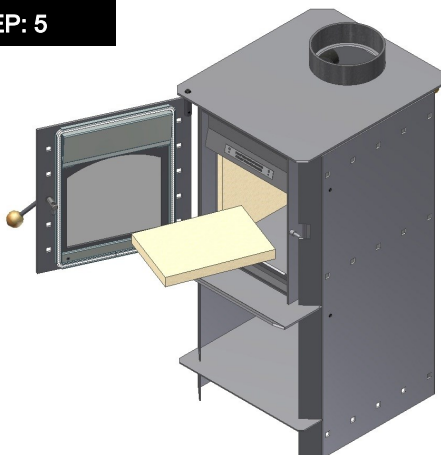
While holding up the steel baffle horizontally, insert the opposite side brick in from underneath it, as shown above. The 2 side bricks will now support the steel baffle.

**STEP : 4**



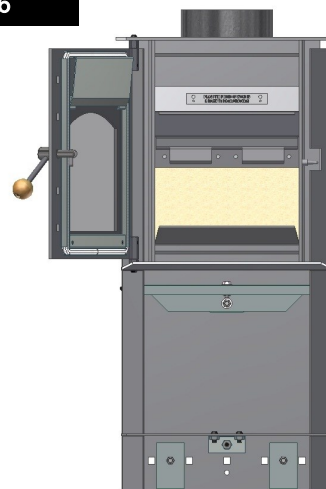
Push the baffle right to the back of firebox.

**STEP: 5**



Fit back vermiculite board panel into the firebox back, ensuring that it is sitting hard against the back of the firebox.

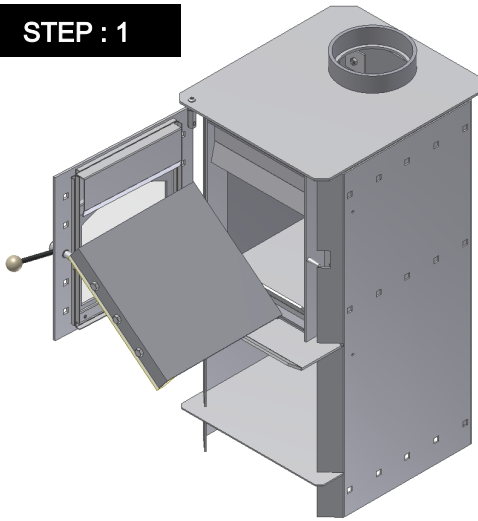
**STEP: 6**



Once the vermiculite board back is in place, ensure jet inlet holes on the back plate are clear of any obstructions.

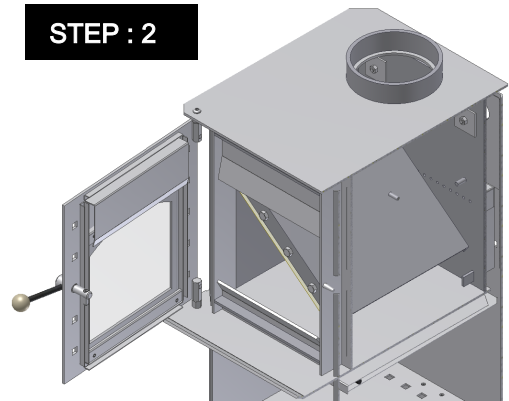
**FITMENT AND REMOVAL OF BAFFLE - (Clean Air Model from 2005-2014)**

**STEP : 1**



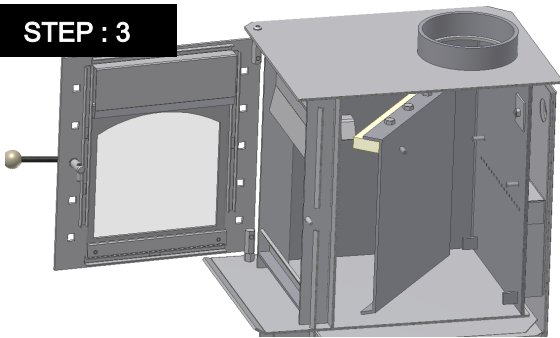
Remove ash & Studio bricks

**STEP : 2**



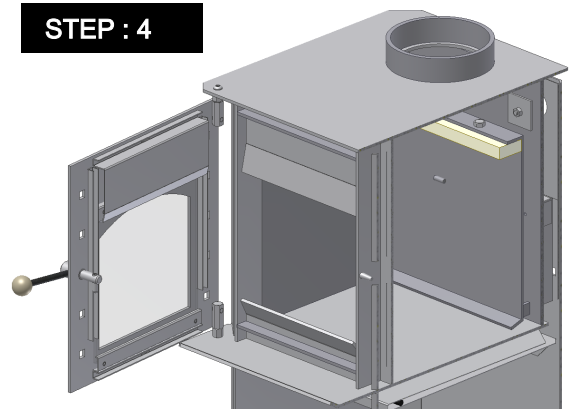
Tilt Studio baffle on an angle & slide in through door frame

**STEP : 3**



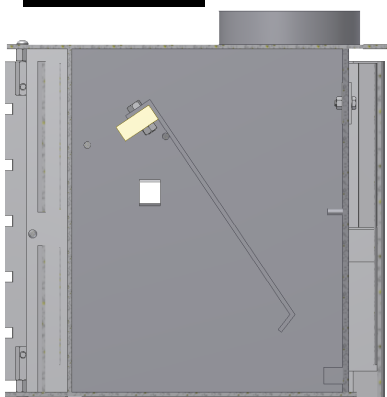
Rotate Bbaffle 90 degrees

**STEP : 4**



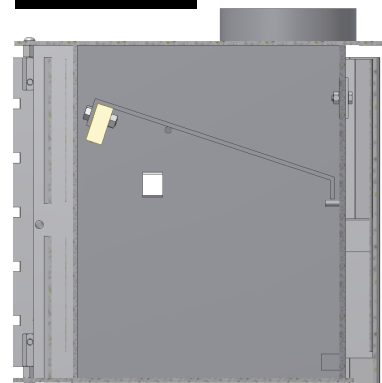
Push baffle right to the back of firebox

**STEP : 5**



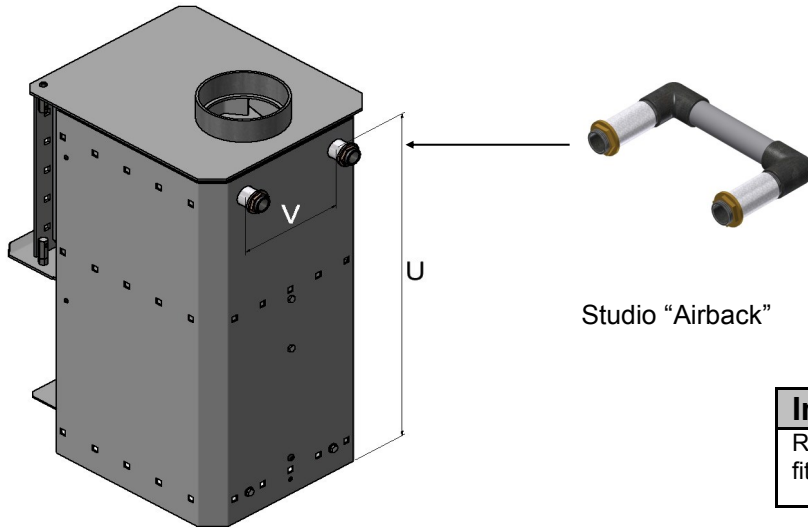
Move baffle forward to sit on pins

**STEP : 6**



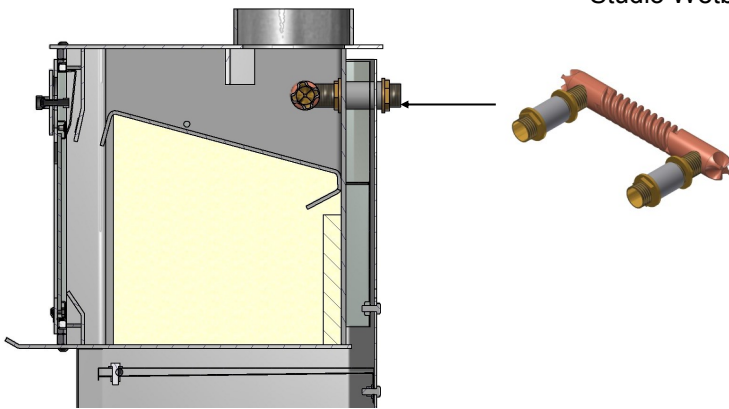
Move the back of the baffle up to sit on the pins at the back of the firebox

**WETBACK POSITION (Clean Air from 2014 Model)**



Studio "Airback"

**Important note:**  
Remove "Airback" before fitting Studio wetback.

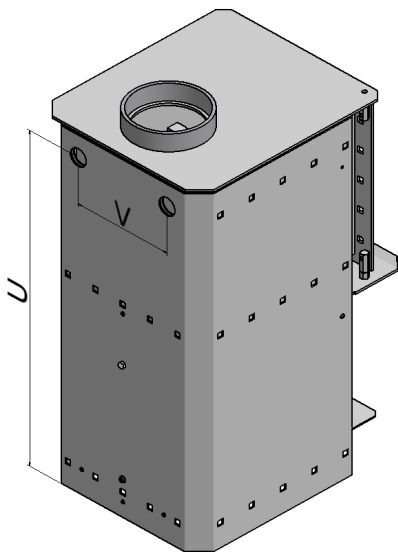


Studio Wetback

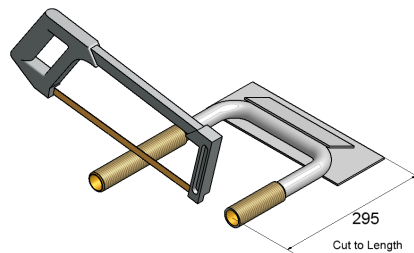
<b>Description</b>		
Height from bottom of unit	<b>U</b>	750
Distance between outlets	<b>V</b>	220

<b>Power out</b>	<b>kW</b>
Wetback	0.7

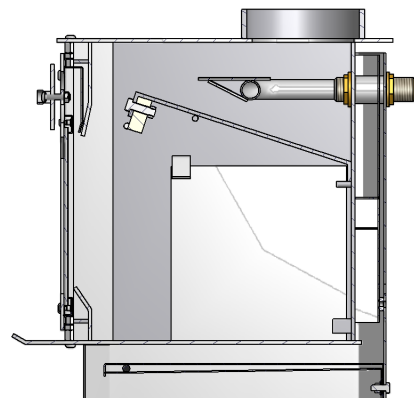
**WETBACK POSITION (Clean Air from 2005—2014 Model)**



**Note:**  
Wetback can NOT be fitted to fires that are installed in any area that falls under clean air regulations.  
  
Cut excess BSP pipe off wet back to length.  
To be carried out by Plumber.



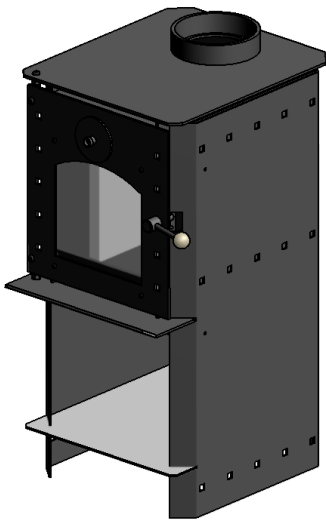
<b>Description</b>		
Height from Bottom of Unit	<b>U</b>	750
Distance Between Outlets	<b>V</b>	220



# STUDIO GLASS FITMENT

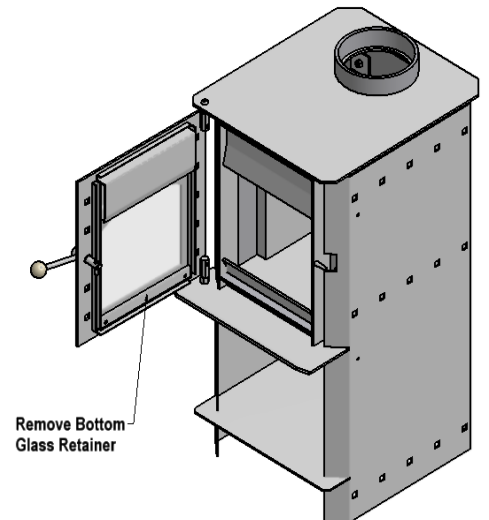
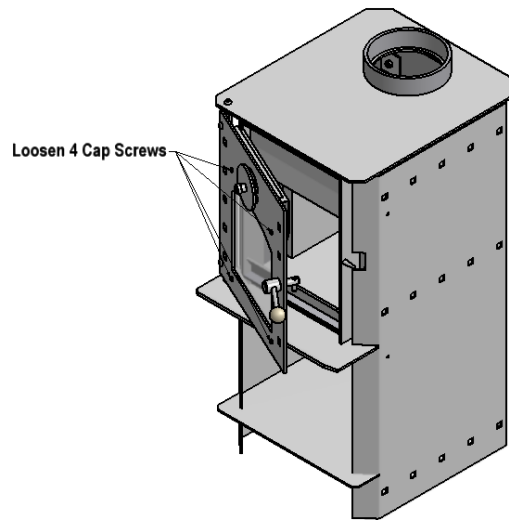
## No. 1

The Studio door glass is a special heat resistance glass designed for use in fires.



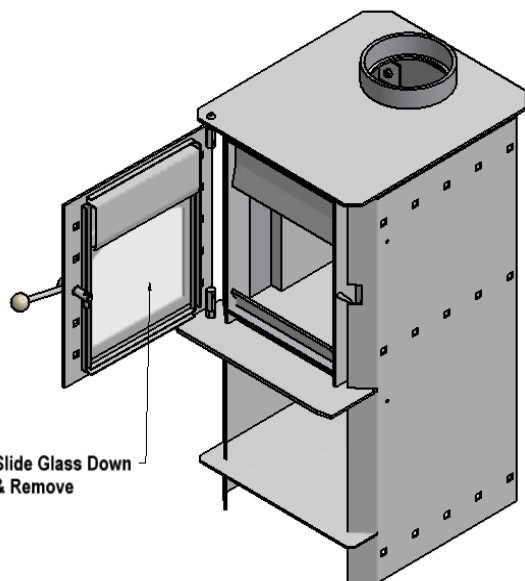
## No. 2

The glass can be replaced with the door still fitted to the fire. Loosen the 4 cap-screws on the front of the door that retains the glass (using a 3mm allen key), and remove the bottom glass retainer.



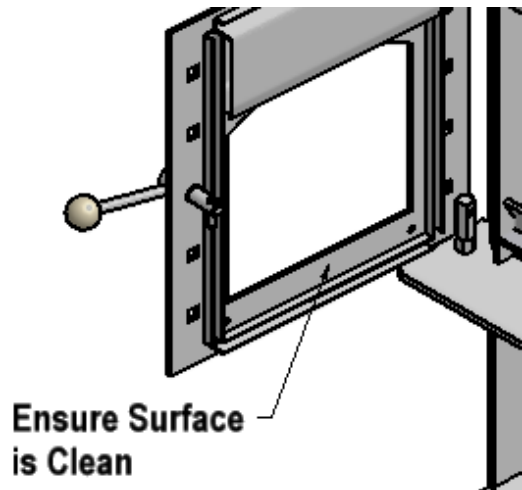
## No. 3

Slide the glass down towards the bottom glass retainer and remove the glass and any shards.



## No. 4

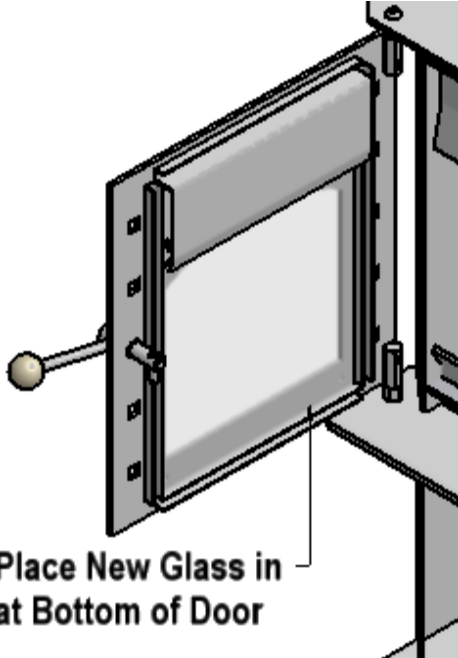
Ensure that both glass & door surfaces are clean and true.





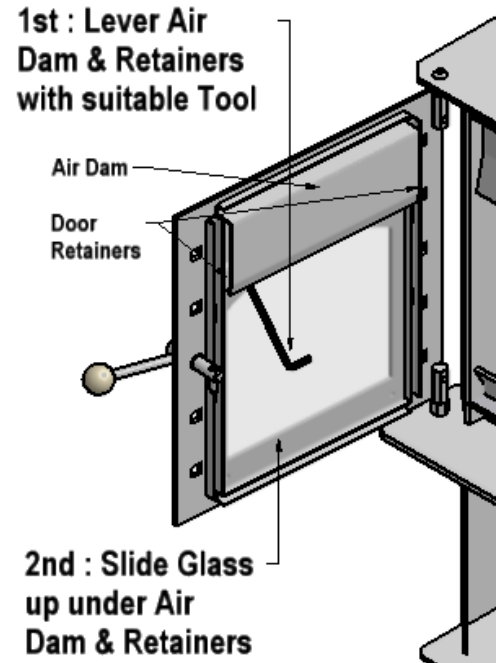
**No. 5**

Place the new glass into the door at the bottom.



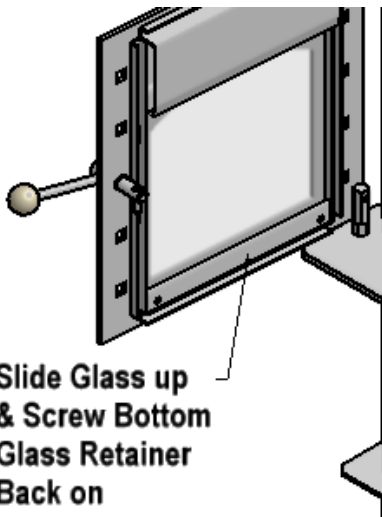
**No. 6**

With a 3mm allen key, hook under the air dam and lever the top door retainer up, at the same time slide the glass up and under the top door retainer.

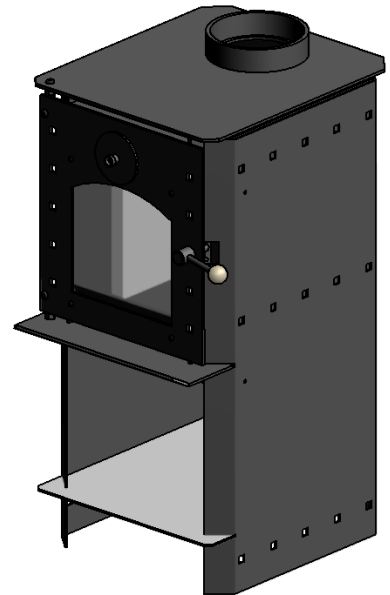
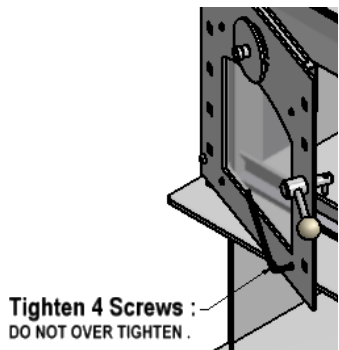


**No. 7**

Slide the glass up and into position, ensure that the bottom glass retainer holes are clear to take the cap screws. Fit the bottom glass retainer.



**No. 8**



**IMPORTANT NOTE :**  
Nip up the cap screws for the top and bottom glass retainers.

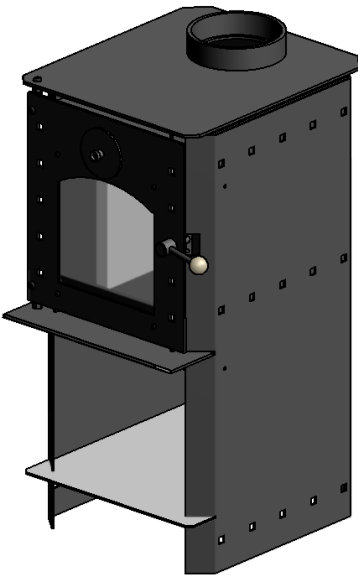
**DO NOT OVER TIGHTEN AS THE GLASS MAY CRACK OR BREAK.**



**STUDIO DOOR ADJUSTMENT**

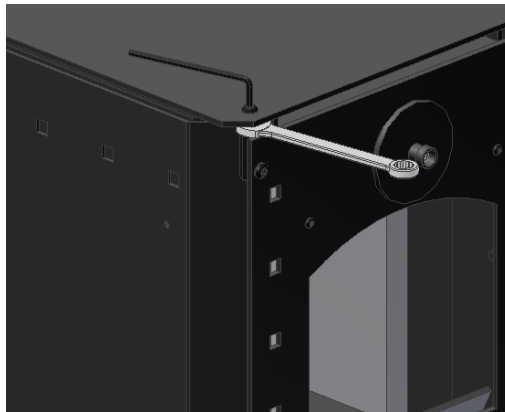
**No. 1**

The Studio door and hinge has been designed to give a wide range of adjustment.



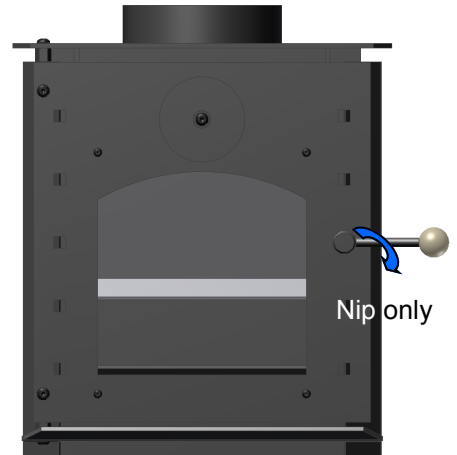
**No. 2**

Have all the screws and the nuts just loose so the door can move with a slight force.



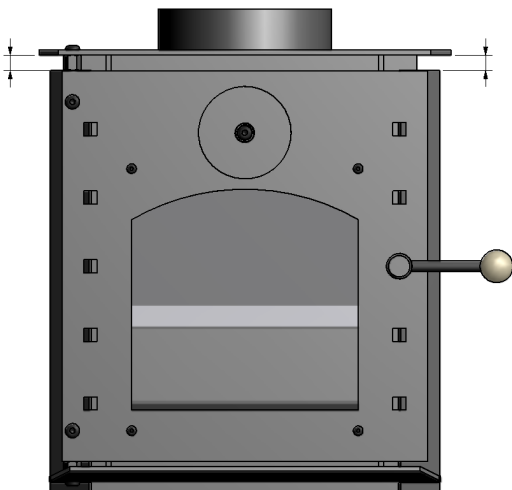
**No. 3**

Close the door and nip the handle closed. Ensure that the handle is only just nipped.



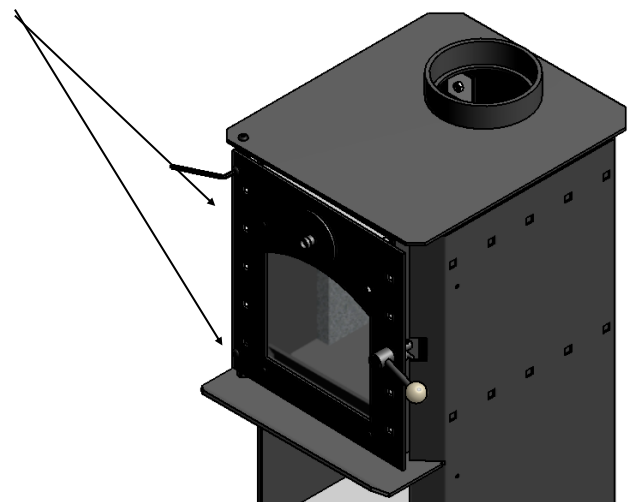
**No. 4**

Line up the door across the top of the fire and ensure that it is parallel.



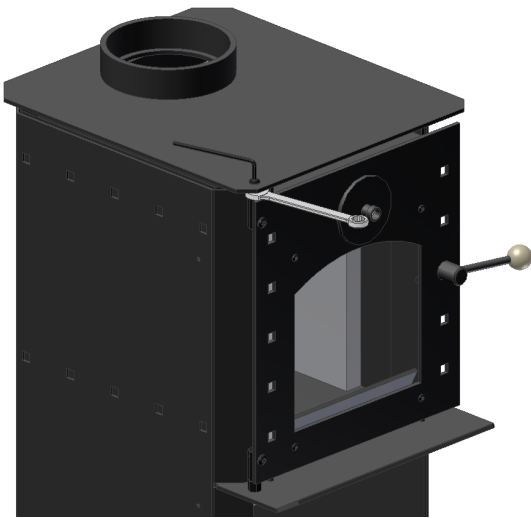
**No. 5**

Tighten up the cap screws on the top & bottom door front first.

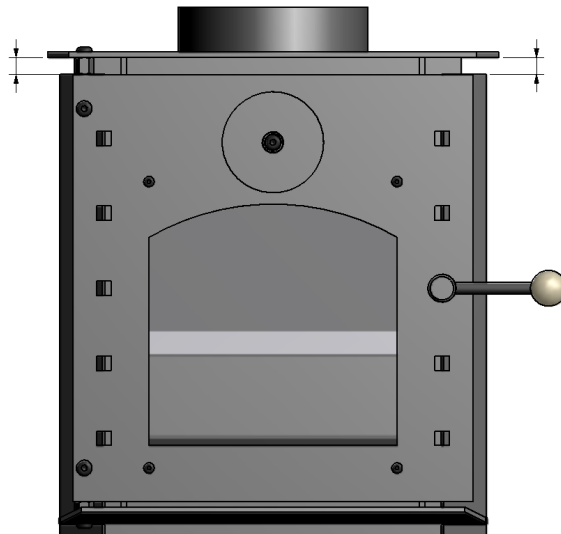


**No. 6**

Ensure that the door is hard back on the hinge side and tighten the top and bottom nuts while holding the button head cap screw with the 5mm allen key and spanner.

**No. 7**

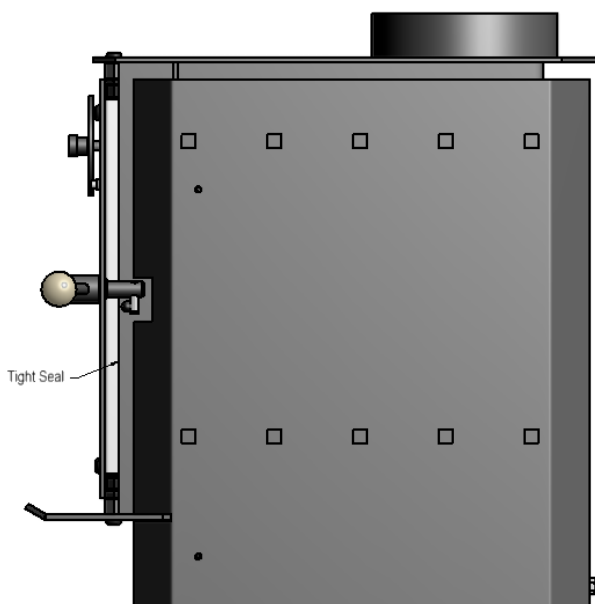
Ensure that the door is parallel to the top of the fire.



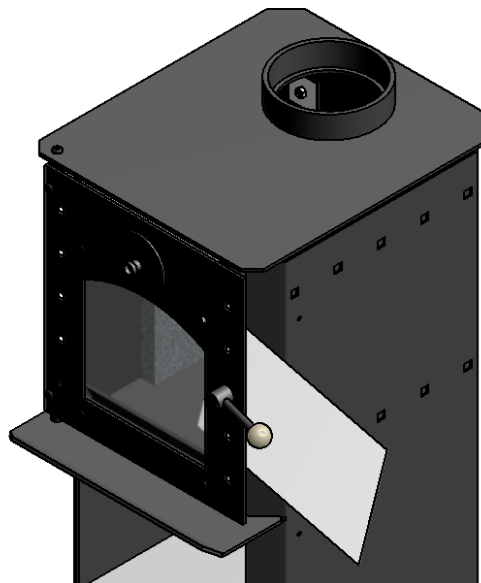
Check both ends of the doors to make sure it is parallel to the unit.

**No. 8**

Ensure that the door seal is mating with the door frame and making a seal by looking along the door and seal as they mate. If it is not mating correctly, repeat adjustment process.

**No. 9**

Check the seal by opening the door and placing a piece of newspaper between the door frame and the door seal, close the door and see if there is some resistance when removing the newspaper. This will prove if the door is sealed. If seal is not made, repeated the adjustment process or a new door seal rope may be required or repeat the adjustment process.



Nip up screws while holding door in place, then tighten fully with a 5m allen key.

**MAINTENANCE RECORD**

<i><b>Date</b></i>	<i><b>Maintenance work carried out:</b></i>