



Big Bakers Oven

Operating Instructions

Efficient—Warm—Friendly

Keep instructions in a safe place for future reference

Do not throw away



Pecan Engineering Pty Ltd proudly supports the activities of Landcare Australia through its membership of the AHHA

USER INSTRUCTIONS

1. INTRODUCTION

Before use of this appliance please read these instructions fully.

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 IT IS OPERATING.

WARNING: DO NOT STORE FUEL WITHIN HEATER INSTALLATION CLEARANCES.

WARNING: WHEN OPERATING THIS APPLIANCE AS AN OPEN FIRE USE A FIRE SCREEN.

WARNING: OPEN AIR CONTROL (AND DAMPER WHEN FITTED) BEFORE OPENING FIRING DOOR.

CAUTION: THIS APPLIANCE SHOULD NOT BE OPERATED WITH A CRACKED GLASS.

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.

The appliance or flue system should not be modified in any way without the written approval of the manufacturer.

Extractor fans or cooker hoods must not be placed in the same room or space as this can cause appliance to emit smoke into the room.

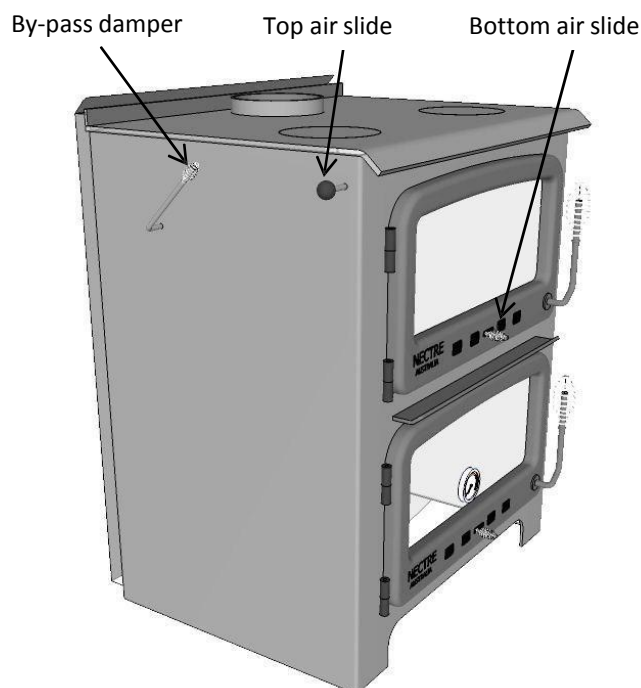
AIR CONTROLS

The Nectre Big Bakers Oven has two air controls and a by-pass damper for controlling the fire.

By-pass damper:- In the open position, this diverts the flame path from the firebox directly up the flue. In the closed position, the flames are diverted down the sides of the heater, around the oven before then travelling up the rear of the heater and up the flue.

Top air slide:- This allows air to enter the firebox from above the door where it is then drawn down into the base of the fire while keeping the glass clean.

Bottom air slide:- This allows air to enter directly into the base of the fire and is used as a boost especially when getting the fire up to temperature.



DOOR HANDLE

Warning: door handle may get hot if appliance has been left in High burn setting for an extended period of time. In which case use a protective glove or equivalent to open.

Open the top air slide before opening the door to eliminate the chance of backdraft and/or smoke entering the room.

2. USING APPLIANCE FOR FIRST TIME

First few times the appliance is lit, it will give off some odorous fumes. This is caused by the paint curing.

Do not touch the paint work while it is curing otherwise it can leave a permanent mark on the appliance.

Once the paint has cured it will not re-occur.

Keep the room well ventilated until these fumes have cleared.

3. RECOMMENDED FUELS

Burn only seasoned hardwood timber with a moisture content of less than 20%.

Newly cut wood should be allowed to dry/season for 12 to 18 months before use.

Wood should be stored in an environment protected from the weather to minimise any potential moisture content.

For best results, wood should not exceed 270mm in length and 150mm diameter. Any larger and appliance will not operate at its optimum. It is better to burn several smaller pieces of wood than one large single piece.

Poor quality timber:

- Causes low combustion efficiency
- Produces poor emissions (smokey)
- Results in additional build-up of creosote (soot) in the flue which will then require regular cleaning and may result in a flue fire.

Do not burn painted, impregnated/treated wood, manufactured board products or pallet wood.

4. LIGHTING THE FIRE

1. Place firelighters and/or paper and dry kindling wood in the base of the firebox.
2. Open all air controls :-
 - a. by-pass damper – push the lever towards the rear of the heater
 - b. top air slide – pull knob control all the way out (to the left)
 - c. bottom air slide – slide spring handle across to the left

3. Light the paper or firelighters.
4. Once the fire has taken hold add larger pieces of wood. For optimal burn conditions, place the logs in a front to back orientation (right angles to the door opening). Too many logs may smother the fire.
5. Once the fire is established, close the by-pass damper by pulling the lever towards the front. This produces a higher heating efficiency as the heat from the flames is not lost going directly up the flue.
6. The bottom air slide should also be closed (slide to the right). Leaving this open once the fire has established can risk over-firing and damaging the appliance.

Do not leave fire unattended with bottom air control open as over-firing may occur.

5. RUNNING THE APPLIANCE

The heat output of the appliance is controlled by the top air slide.

High heat output:

- After establishing the fire and loading it with larger pieces of wood, leave it running with the top air slide fully open.
- This setting will generate maximum heat output and produce high oven temperatures.
- Running the appliance with the door open will not produce maximum heating in the room as it will draw a lot of already warmed air out of the room.
- Similarly running the stove with the top air slide and the bottom air slide fully open will often not give the hottest fire as too much heat is lost up the flue and does not come into the room.
- Note that this setting is not the most energy efficient as some heat is lost up the flue instead of being transferred into the room.
- **Do not overload firebox with fuel.**

Low heat output:

- The heat output of the appliance can be reduced by closing the top air slide (slide to the right) which will restrict the oxygen supplied to the fire thereby slowing down the rate at which the wood burns.
- This setting will produce lower oven temperatures.
- This setting will provide the best energy efficiency as the wood burns for longer. However, if not operated correctly may result in higher particulate emissions.

- **Prior to closing the air slide** ensure that the fire is burning briskly. This may require opening the air slide fully for 10-15mins before shutting down.
- For the optimum between clean burning, and getting the best in efficiency, from the fully closed position, open the top air slide 4-5mm.

The top air slide can be adjusted to any position so desired depending on wanted heat output versus burn time.

Reload with more wood:

1. Open air slide before opening door.
2. Rake / break up any existing coals.
3. Load the wood with the length orientated front to back.
4. Better results will be achieved by loading several smaller pieces of wood rather than one large piece.
5. Close door with top air slide fully open, and leave for minimum of 10 minutes to allow the fresh wood to catch.
6. After 10 or more minutes, the top air slide can be adjusted to the desired heat output setting.

6. OPERATING THE OVEN

When using the oven ensure that the by-pass damper is in the closed position, and the bottom air slide in the oven door is closed.

To maintain a constant oven temperature, have the fire burning briskly using small pieces of wood that provide plenty of flames.

If the temperature in the oven gets too hot, reduce the amount of oxygen to the fire by partially closing the top air slide. Alternatively, open the bottom door slide control in the oven door.

If the temperature in the oven drops below that desired, open the top air slide and add some more pieces of wood if required.

The round hotplates in the top of the heater can be removed for cooking purposes allowing direct flame to a wok or frypan. A triangular-handled tool is provided for lifting out the round hotplates.

7. BURNING TIPS

Fuel Quality

1. Use wood with a moisture content of less than 20%. Logs should not feel moist or damp, or have moss and fungal growths.
2. Symptoms related to wet wood:
 - Difficulty starting and keeping a fire burning well
 - Smoke and only small flames
 - Dirty glass and/or fire bricks
 - Rapid creosote build-up in the flue/chimney
 - Low heat output
 - Short burn times, and blue/grey smoke from the flue/chimney outlet
3. If on the rare occasion the wood is not ideally seasoned, still retaining some moisture, continue using the top air slide to determine the heat output and burn rate but also leave the bottom air slide open 3-4mm. This will allow some extra oxygen into the base of the fire allowing it to burn hotter.
4. Run the appliance at high heat output for a short period each day to avoid large build-up of tars and creosote within the appliance and flue.

Flue Draught

The flue has two main functions:-

1. To remove smoke, gases and fumes from the appliance.
2. To provide a sufficient amount of draught (suction) in the appliance to ensure the fire keeps burning.

Draught is caused by the rising hot air in the flue when the fire has been lit.

The position, height and size of the flue can affect the performance of the flue draught. Refer to installation guide for details on flue installation.

Factors affecting the flue draught include:

- Insufficient flue height
- Trees or other buildings nearby causing turbulence
- High and gusty winds
- Outside temperature and weather conditions
- Blocked flue

For advice on the correction of persistent flue problems consult your supplier/installer for more detail.

8. ASH REMOVAL

Depending on the type of wood burnt and frequency, the ashes will need removing every 2 to 6 weeks.

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.

Leave a small amount of ash, approximately 10mm thick, in the bottom of the firebox. This helps to insulate the base of the firebox.

9. FLUE/CHIMNEY FIRE

If a flue/chimney fire occurs:

- Shut air slide control fully to smother the fire
- Do not use the appliance after a flue fire until an accredited installer has assessed the cause and any resultant damage.

10. CLEANING PAINT WORK & GLASS

- The appliance, when cool, can be cleaned with a damp cloth.
- Over the years, the black paint will fade and can be touched up with Stove Bright metallic black paint.
- To clean the glass, we recommend using a household window cleaner or general purpose cleaner with a soft cloth.
- **Do not use abrasive cleaner or scourer pads.**

11. CLEANING THE FLUE

Check inside of flue prior to each season for any build-up of creosote (wood tar). To do this:-

1. First remove the baffle (refer to “2. Replacement of Baffle” under Maintenance & Servicing section).
2. Using a small mirror and torch hold the mirror on an angle below the flue with the torch shining at it and look for black creosote build-up. If only a fine black powdery layer then that is normal, but if built up layers of creosote can be seen, then the flue needs cleaning.
3. Refit the baffle if no cleaning is required.

To clean the flue:-

1. A flue cleaning brush can be purchased from most wood heater retail outlets or large hardware stores.
2. The objective is to pull the brush down through the flue.
3. With the baffle removed, tie a rope to one end of the brush, and drop the rope from the top (outside on top of the roof) down the flue.
4. Grab the end of the rope inside the firebox and pull the brush through.
5. Check the inside of the flue with the mirror and torch. Repeat if necessary.
6. Once clean, remove any excess creosote from the firebox and replace the baffle.

Alternatively, get a flue cleaning service to do the job for you (it's a dirty job).

Check flue integrity by checking that the 900mm flue sections have not separated at the joins.

12. TROUBLESHOOTING TIPS

1. Glass in door blackening

This can have several possible causes:

- i) **Burning unseasoned wood** — if the wood is too wet, it will cause the glass to blacken.
 - ii) **Appliance operated at low temperature** — after an overnight burn where the air slide control has been fully closed, the glass may have blackened. When the fire is re-stoked and burning on the high heat setting, the blackened glass should self-clean.
 - iii) **Problems with the flue** — insufficient flue draught can cause the glass to blacken. If the flue is too short, not properly insulated, or in a position that results in a downdraught, then there will be insufficient flue draught. Contact the installer should this happen.
2. **Trouble starting the fire** — if all ash has been removed from the firebox, then it can upset the supply of air to the base of the fire. It can aid the fire by retaining some ash when cleaning out the firebox.
 3. **Glass cracking** — Do not over tighten the screws on the stainless steel strips that hold the door glass in place. Otherwise, expansion of the cast iron door may cause the glass to crack.

MAINTENANCE and SERVICING

1. REPLACEMENT OF BAFFLE PLATE

The 6mm thick steel baffle plate helps to retain the heat in the firebox by lengthening the path of the flame as well as protect the top plate of the heater.

Over time, the baffle will begin to sag a little due to the excessive heat. This will not affect the way the fire burns.

Eventually the baffle will burn through (5+ years) and if so will need to be replaced.

To remove the baffle:

- i) Lift the baffle plate and slide forward until the rear edge is clear of the brick retainer.
- ii) Lower the rear of the baffle plate until the front edge of the baffle plate has cleared the support lugs.
- iii) With the baffle plate clear of the brick retainer and support lugs, it can be removed through the door opening.
- iv) Repeat steps i) to iii) in reverse to replace with the new baffle.

Note: 100mm strip welded to baffle plate faces down and locates between the two support lugs.

2. Replacement of firebox side shields

The heater comes with two 8 mm thick sacrificial shields fitted to the sides of the firebox to protect the walls of the firebox.

Lugs on the shields allow them to hang over the angled cut-out on the sides of the firebox along the top.

To remove the shields, raise until the support hooks are clear of the triangular cut-out on the side of the heater and remove.

To fit new side shields, simply hang them on the diagonal edge of the triangular cut-out on each side of the firebox.

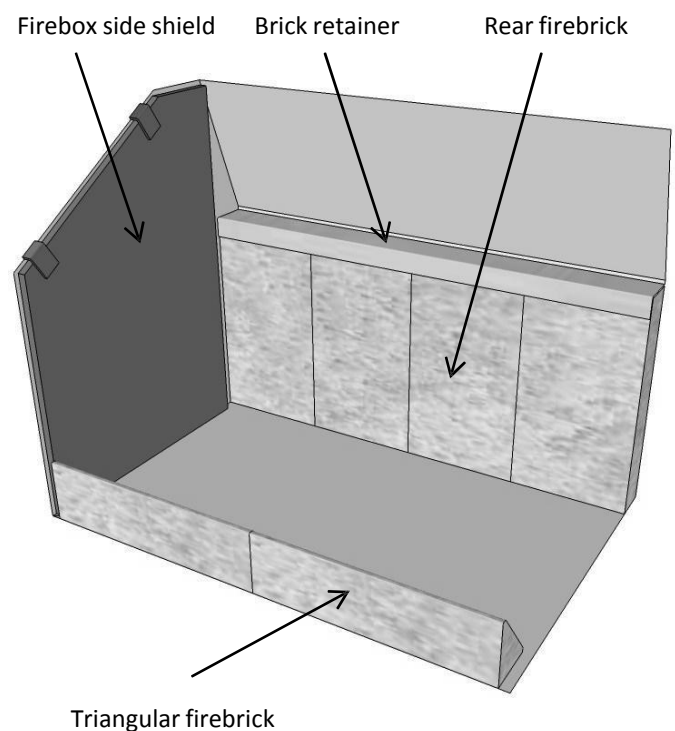
The side shields come as a left and a right, they are not interchangeable.

3. REPLACEMENT OF FIREBRICKS

The purpose of the firebricks in the appliance is to increase thermal mass and to guarantee the longevity of the steel firebox. Over time the firebricks may become cracked and crumble away. If so, then they should be replaced soon after.

To replace the firebricks:

- i) Move any ash away from the base of the bricks.
- ii) Remove the firebox side shields.
- iii) Remove the brick retainer and remove the bricks.
- iv) Replace with new bricks, reposition the retainer which hold the bricks in place, and refit the side shields.



4. FITTING A NEW DOOR GLASS

This task may be easier with the door removed from the appliance and laid horizontally on a work-bench.

To replace the door glass:

- i) Two stainless steel strips hold the glass in place. Remove the four M4 size Phillips head screws from the stainless steel strips.
- ii) Take out the glass, and check if the grey rope beneath needs replacing. If so replace this rope as well.
- iii) Position the new glass on top of the grey rope and re-fit the stainless steel strips and M4 screws.
- iv) **Take extra care not to over-tighten the screws, otherwise the glass will crack when the heater gets hot and the door expands.**
- v) On occasion, the M4 screws will have deteriorated from the constant heat in the firebox resulting in them snapping off when trying to loosen them. In this case, a new hole can be drilled in the door and tapped using a 3.4mm drill bit, and M4 tap.

5. FITTING A NEW DOOR SEAL

This task may be easier with the door removed from the appliance and laid horizontally on a work-bench.

- i) Remove any old seal from the door.
- ii) Clean out the groove in the door that the seal was bedded in using a flat-end screw driver or equivalent.
- iii) Run a thin bead of clear roof and gutter silicone along the groove.
- iv) Starting at one end, press the new door seal rope into the groove on the door.
- v) Refit the door if it has been removed and close.

6. ADJUSTING DOOR LATCH

If the door does not close firmly, then the door latch can be adjusted.

In the front lower right-hand corner of the door opening, inside the firebox, is a welded tab which the door latch secures against when the door is closed. Using a large flat-end screw driver, place it under the base of the tab and gently lever it out.

Close the door with the door handle to test for any improvement. If no improvement, repeat process until door can be closed firmly.

7. CHECK CREOSOTE BUILD UP

Over time creosote and ash can build up in the bottom of the heater. If not checked and cleaned annually it can result in a blockage stopping the flames and smoke from exiting up the flue when the by-pass damper is closed.

The plate in the bottom of the oven can be lifted from the front where there is a raised edge. With a dust pan brush, go through the square access hole and brush along the sides and rear of the heater bringing any creosote build-up into the centre so can be removed with the dust pan.

8. REPLACEMENT SPARE PARTS LIST

Firebricks:	4 rectangular @ 230mm x 115mm x 38mm 2 triangular @ 250mm x 70mm x 50mm
Brick retainer:	stainless steel 480mm x 48mm x 25mm
Baffle Plate:	325mm x 250mm x 6mm
Side shields:	2 shields @ 350mm x 260mm x 8mm
Glass seal:	1360mm 8mm x 3mm
Glass:	476mm x 200mm x 5mm
Door rope:	1610mm x 13mm round braided ceramic rope

WARRANTY

Pecan Engineering Pty. Ltd. warrants this stove to be able to operate under normal use and service and within 5 years from the date of the original purchase on the terms herein shall repair or replace without cost to the original customer any part thereof which shall be returned to our factory, transportation charges prepaid and which our inspection shows would prevent operation.

This warranty does not apply to firebricks, brick retainer, baffle, door seal, glass, nor discolouration of the surface or tarnishing of chrome fittings all of which require normal service to maintain them.

Under the terms of this warranty, Pecan Engineering Pty. Ltd. assumes no responsibility for the labour costs involved in removing or replacing the stove. Nor shall Pecan Engineering Pty. Ltd. be liable for any injury, loss, or damage (direct, indirect or consequential) arising out of the use or inability to use the product, or its removal and replacement. All other stove warranties, expressed or implied are excluded to the extent possible to law. Any claims against Pecan Engineering Pty. Ltd. must be brought within Australian Jurisdiction.

The Retailer does not have the authority to alter this warranty.

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