



NECTRE FIREPLACES

Nectre MK1 LE

Installation Instructions



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THE INSTALLATION INSTRUCTIONS IN THIS MANUAL APPLY TO THE NECTRE MK1 LE.

IT HAS BEEN TESTED FOR EMISSIONS AND EFFICIENCY AND COMPLIES ACCORDING TO AS/NZS 4012:1999 & AS/NZS 4013:1999.

1. IMPORTANT INFORMATION

Most building regulatory Authorities in Australia require any wood heater installation to comply with Installation Standard AS/NZS 2918:2001. Different states and councils may have varying regulations. Check local building regulations before installing the appliance.

All Nectre wood heaters have been tested to ensure that they will meet the appropriate safety Standard requirements if the instructions in this manual are followed. As the safety and emissions performance can be affected by altering the appliance, no modifications are allowed without written permission from the manufacturer.

WE RECOMMEND THAT THE INSTALLATION OF YOUR NECTRE WOOD HEATER BE CARRIED OUT BY A QUALIFIED INSTALLER.

WARNING: THE APPLIANCE AND FLUE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH AS/NZS 2918:2001 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 4012 & 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 4012 & 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 4012 & 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: CRACKED AND BROKEN COMPONENTS, EG. GLASS PANELS OR CERAMIC TILES, MAY RENDER THE INSTALLATION UNSAFE.

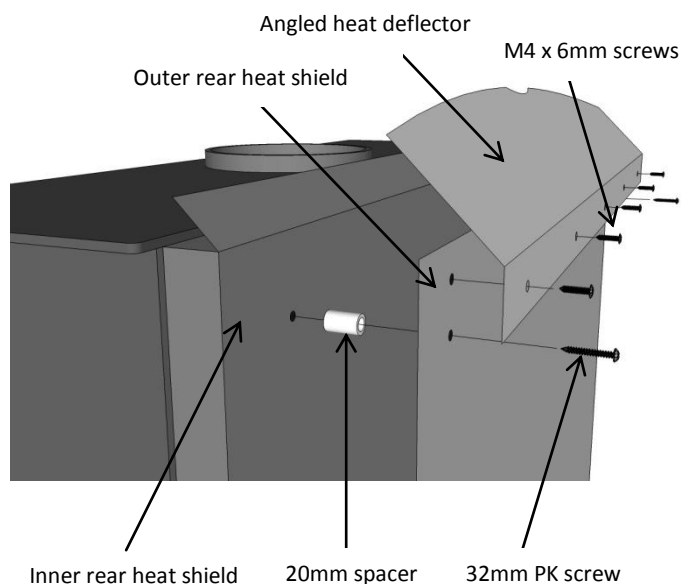
2. INSTALLING THE HEATER

2.1 Fitting rear heat shield

The rear outer heat shield should be fitted with spacers before working out the position of the heater and the relevant clearances to combustible surfaces.

- i) On the rear of the heater, there are four 32mm long PK screws fixing the outer heat shield to the inner heat shield. Remove the screws and the outer heat shield.
- ii) Remove the five M4 x 6mm long screws from the outer heat shield.
- iii) Remove and unwrap the black angled heat deflector from inside the heater.
- iv) Line up the five holes on the angled deflector with the five holes on the outer heat shield, re-insert the five M4 screws and tighten.

A plastic packet with four 20mm long tubular spacers will be inside the heater. Relocate the four 32mm long PK screws through the original holes in the outer rear heat shield, slide a spacer over each screw, and re-fasten to the inner rear heat shield.



2.2 Positioning the Heater

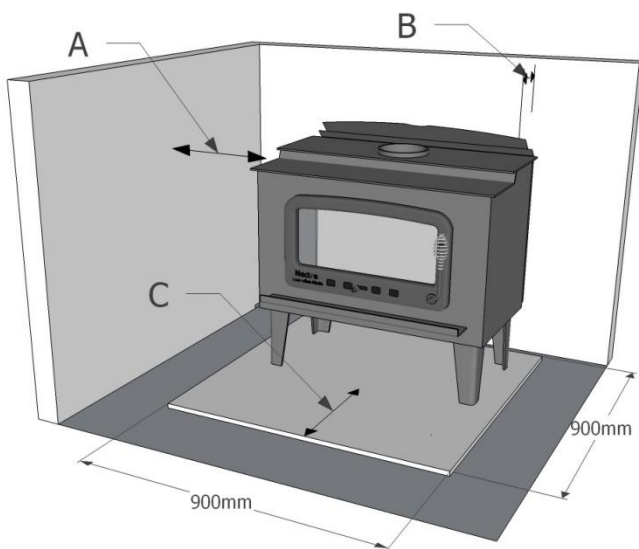
First review the necessary clearances specified below before considering where to position the heater.

Also check the practicability of installing the flue system in relation to any obstructing roof beams before positioning the heater.

These clearance distances can only be reduced if the surrounding walls are made of non-combustible material, eg. Stone, brick, or concrete. If non-combustible material, distance can be reduced to 100 mm. Alternatively, shielding of the wall(s) can reduce clearances (refer to next section for more detail).

Depending on the type of flue shielding used, the clearances to combustible surfaces varies.

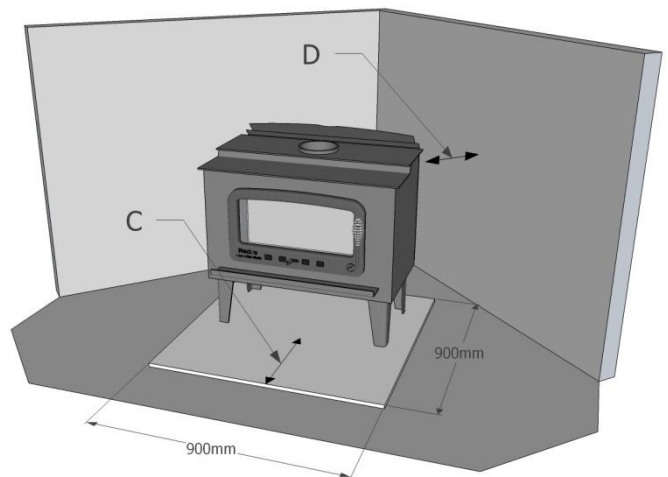
2.2.1 Standard Installation:



Flue shielding	A (mm)	B (mm)	C (mm)
900mm rear flue shield	650 (500*)	140	400
Decro-mesh with 900mm inner reflector	650 (500*)	140	400

(Note: * when fitted with side shields)

2.2.2 Corner Installation:



Flue shielding	C (mm)	D (mm)
900mm rear flue shield	400	500 (*300)
Decro-mesh with 900mm inner reflector	400	500 (*275)

(Note: * when fitted with side shields)

2.3 Floor Protector (Hearth)

Unless the heater will be standing on a heat resistant floor such as concrete slab with slate or tiles, it will be necessary to provide a floor protector (hearth).

The dimensions given in above (Section 2.2.1) are the minimum required for the floor protector. It must extend no less than 400 mm in front of the door opening, no less than 200mm either side of the door opening, and extend under the heater. Minimum dimensions for floor protector are 900mm wide by 900mm deep. It may be desirable, for example aesthetic reasons, for the floor protector to be larger than these minimum dimensions.

The floor protector shall be constructed of non-combustible material no less than 15mm thick and with a thermal conductivity not greater than 0.33W/m °K, eg. compressed cement sheet. The floor protector may be laid directly on the combustible floor.

For more details and variations on floor protectors refer to AS/NZS 2918:2001 Clause 2.2, 3.3.1, & 3.3.2.

3. Reducing Clearances to Combustible Walls

If it is necessary to install a heater closer to a combustible surface than the stated requirements in Section 2 of this Installation Guide, it must be done in accordance with Australian Standard AS/NZS 2918:2001 Section 3, Tables 3.1 & 3.2.

Shield Construction:- The shield shall be constructed from a heat resistant material. The shield must be fixed to the surface that requires protection and NOT the heater.

The Standard allows three options to reduce stated clearances.

Single layer of continuous material with Minimum Air Gap of 12mm—Clearance Factor = 0.40

Single layer of continuous material with Minimum Air Gap of 25mm—Clearance Factor = 0.30

Two spaced layers of continuous material with Minimum Air Gaps of 12mm + 12mm—Clearance Factor = 0.20

The shielding must be open at the top and bottom (vented) to allow a continuous air flow. It is this air flow that keeps the surface requiring protection cool. Fixings should not impede this air flow.

The shielding needs to go far enough along and up the wall so that the original side and rear required clearances are not compromised. As the flue is now closer to the wall the shielding should also protect the wall from the flue pipe.

For example:

Side wall clearance for the Nectre MK1 LE is 650 mm.

A 12mm gapped shield on the wall with a factor of 0.40.

Calculate:- $650 \text{ mm} \times 0.40 = 260 \text{ mm}$. This is the new side wall minimum clearance.

The shielding needs to be large enough so that none of the original clearances of 650 mm are compromised.

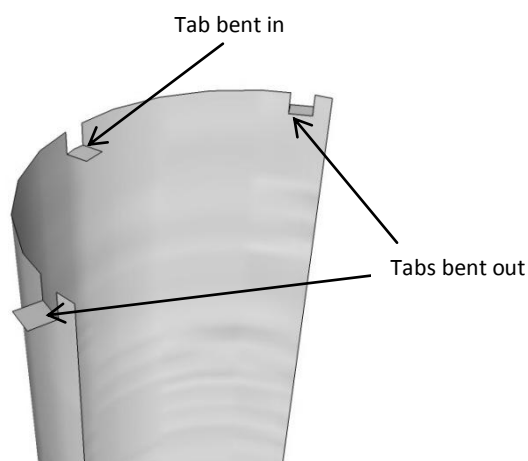
4. INSTALLING THE FLUE

The flue system used when installing the heater MUST comply with the current installation standard AS/NZS 2918.

Full instructions on the installation of the flue will be supplied with the flue kit. These MUST be followed closely, including the minimum exit height from the top of the floor protector being not less than 4.6m, and the minimum exit height above the roof line of roof ridge as detailed in the instructions.

The flue must be fitted with either of the following:

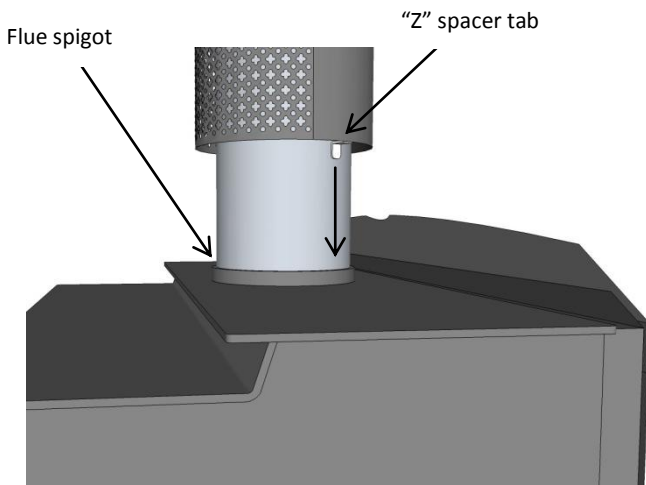
- 1) **Rear flue shield** – 900 mm long, minimum 160° arc, stainless steel unpainted rear flue shield with 25mm gap between it and the 150mm diameter active flue, OR
- 2) **Decro-mesh with 900mm long inner shield :-**
 - a) A full length, half radius perforated decro-mesh flue shield extending from the heater through into the drop box penetrating the ceiling.
A 900 mm half round stainless steel inner reflector must be fitted inside the decro-mesh. Using tin-snips, cut three 10mm tabs into the top and bottom of the inner reflector. Bend the centre tabs in, and the ones closest to the edge out to create an air gap between it, the outer decro-mesh, and the 150mm active flue.



- b) Use the two 'Z' spacers supplied in the plastic packet in the heater to support the decro-mesh and inner shield up off the top of the heater. It is important that air can be drawn into the base and rear of the decro-mesh. With a Ø4.3mm drill bit, drill a hole approximately 40mm round from the perforated edge and 10mm up from the bottom. Do the same on the other side relative to the other perforated edge. With the two supplied PK screws, screw the "Z" spacers to the inside of the decro-mesh.

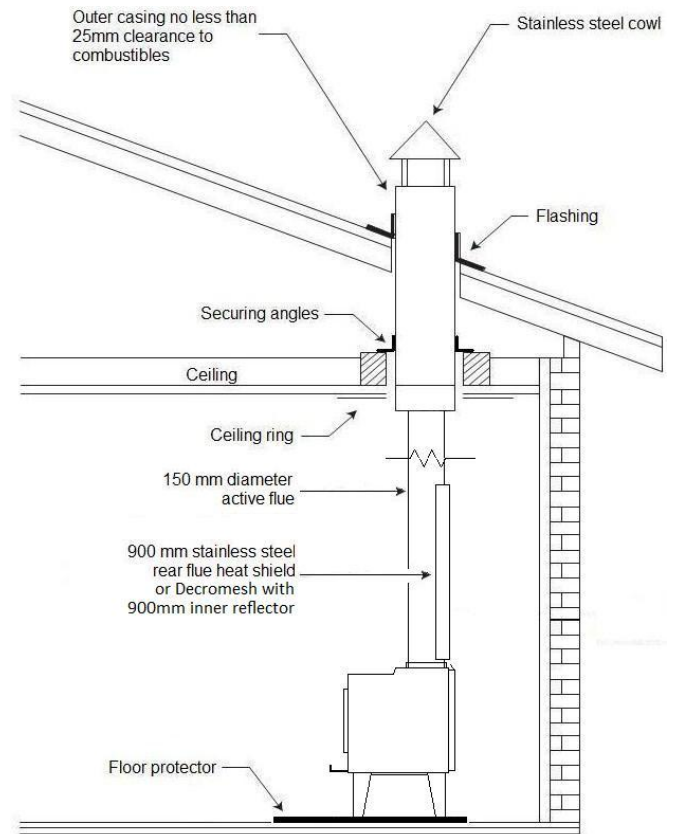


Place the first length of 150mm active flue into the flue spigot of the heater. With the 900mm inner shield fitted inside the decro-mesh with the spacers attached, slide the decro-mesh over the active flue. Locate the tabs of the "Z" spacers between the flue spigot and the active flue.



Warning: Do not install the locating ring if supplied with the decro-mesh kit as this will restrict the air flow.

If the draft is insufficient or periodic down drafting occurs and the heater smokes or only burns slowly, extending the flue or fitting a specialist cowl will usually resolve the issue.

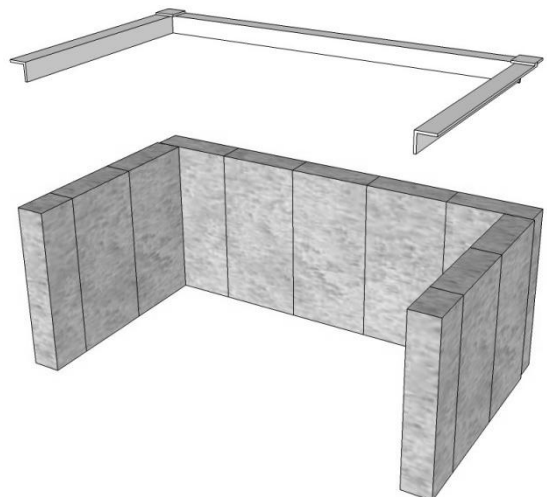


5. INSTALLING FIRE BRICKS

The Nectre MK1 LE comes with 9 full size bricks (234(h) x 118(w) x 40(d)mm) and 2 half size bricks (234(h) x 59(w) x 40(d)mm).

Raise the brick retainer (supplied inside the firebox) and start standing the bricks up against the rear and sides of the firebox as shown in the diagram below.

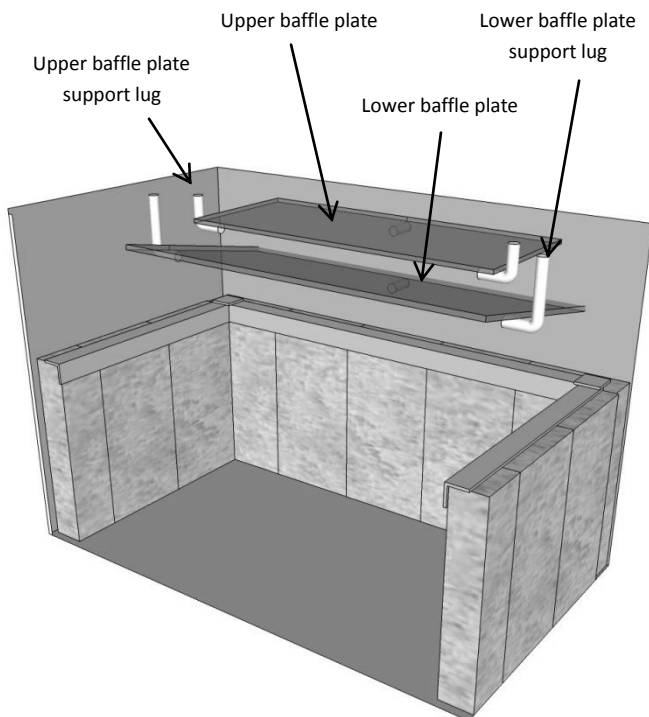
Once bricks are in, fit the retainer over the top to hold them in place.



6. INSTALLING BAFFLE PLATES

The Nectre MK1 LE is supplied with two baffle plates:-

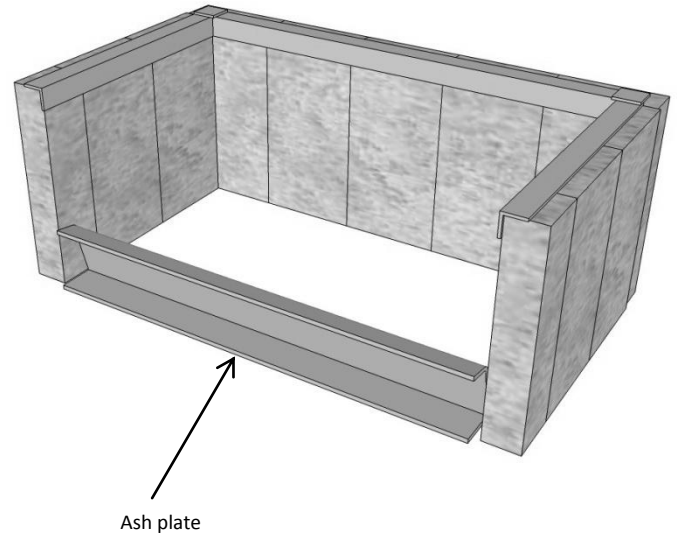
- 1) Upper baffle plate – 400(w) x 160(d) x 5(h) mm.
 - Fit the upper baffle plate first.
 - With the plate in a horizontal position, slide it up and over the shorter of the two sets of support hooks welded to the top of the firebox.
 - Slide the plate back so that it rests on the upper support rod on rear wall of the firebox.
 - The upper baffle plate should be in a horizontal orientation.
- 2) Lower baffle plate – 490(w) x 245(d) x 6(h) mm
 - Slide the lower baffle plate up and over the lower set of support hooks welded to the top of the firebox.
 - Slide the plate back so that it rests on the lower support rod on the rear wall of the firebox.
 - Unlike the upper baffle plate, the lower baffle plate rests on a slight angle sloping down and back to the rear of the firebox.



7. INSTALLING ASH PLATE

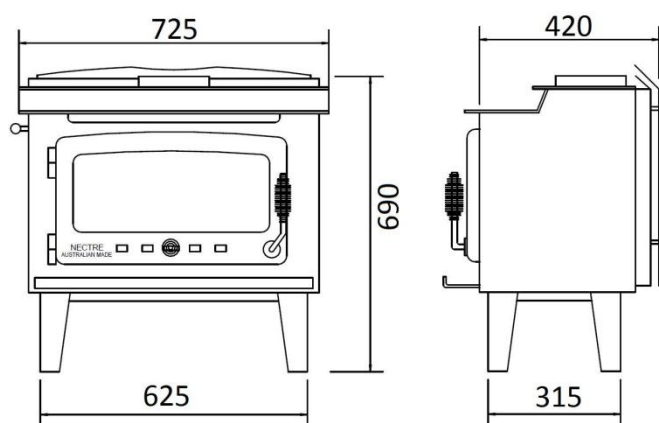
The ash plate acts to protect the front of the firebox below the door opening from the hot coal bed and fire.

When positioning the ash plate, ensure that the front top edge is flush against the inside edge of the firebox beneath the door opening.

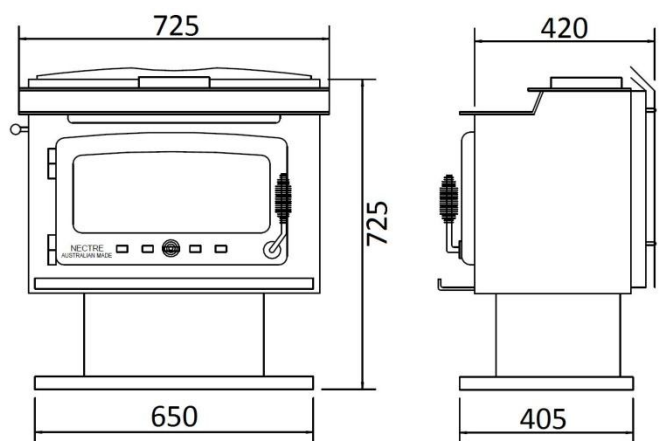


8. TECHNICAL DRAWINGS

Legs Model:



Pedestal Model:



Top view:

