

# Nectre MK1 LE Installation Instructions





Keep these instructions for future reference







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# 1. INSTALLATION

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

THEY HAVE BEEN TESTED FOR EMISSIONS AND EFFICIENCY AND COMPLY ACCORDING TO AS/NZS 4012 & AS/NZS 4013.

#### 1.1. IMPORTANT INFORMATION

The unit must be installed according to all manufacturers' instructions included in this manual. The manufacturer is not liable for installations that do not meet the requirements outlined in this manual.

Most building regulatory authorities in Australia require any wood heater installation to comply with Installation Standard AS/NZS 2918. 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 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 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.

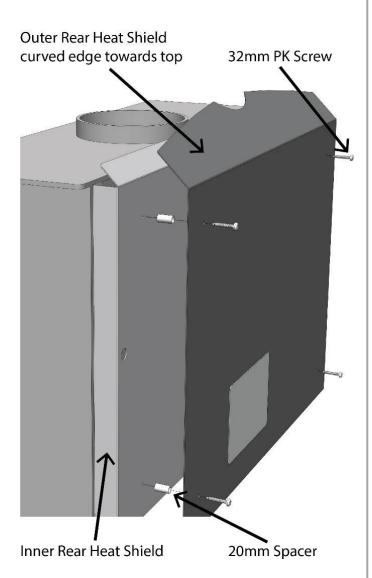
CAUTION: CRACKED AND BROKEN COMPONENTS, EG. GLASS PANELS OR CERAMIC TILES, MAY RENDER THE INSTALLATION UNSAFE.



#### 1.2. FITTING REAR HEAT SHIELD

Before working out the position of the heater and the relevant clearances to combustible surfaces, fit the rear outer heat shield with the curved end at the top and spacers between the inner heat shield:

- On the rear of the heater, there are four 32mm long PK screws fixing the outer heat shield, upside-down, to the inner heat shield. Remove the screws and the outer heat shield.
- Rotate the outer heat shield 180 degrees so that the curved end is on top and angled towards the front of the heater
- 3) A plastic packet with four 20mm long tubular spacers will be inside the heater. Re-locate the four 32mm long PK screws through the original holes in the outer heat shield, slide a spacer over each screw, and re-fasten to the inner heat shield.



#### 1.3. INSTALLING THE HEATER

#### 1.3.1. Positioning the Heater

Review the necessary clearances specified in this section 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.

The clearance distances can only be reduced if the surrounding walls are made of non-combustible material such as 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).

Clearances to combustible surfaces vary depending on the type of flue shielding used.

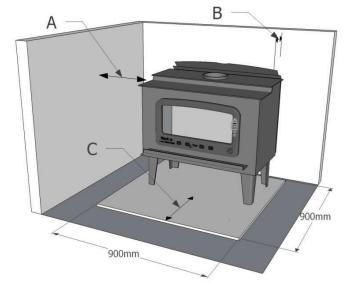
#### 1.3.2. Standard Installation

Dimensions given in the table and image below represent the minimum clearance (in millimetres) to combustible materials.

A = Side clearance

B = Rear clearance

C = Minimum floor protector depth from door opening



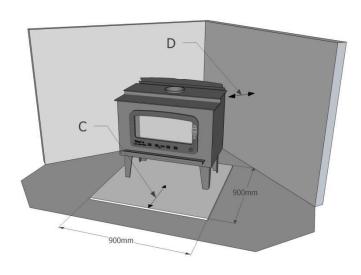


#### 1.3.3. Corner Installation

Dimensions given in the table and image below represent the minimum clearance (in millimetres) to combustible materials.

C = Minimum floor protector depth from door opening

D = Corner clearance



#### 1.3.4. Clearance Dimensions

Options		Clearance (mm)			
Side Shields	Flue Shielding	Α	В	С	D
out ields	Rear Flue Shield	650	140	400	500
Without Side Shields	Decro-mesh with Inner Reflector	650	140	400	500
With Side Shields	Rear Flue Shield	500	140	400	300
	Decro-mesh with Inner Reflector	500	140	400	275

#### 1.3.5. Floor Protector

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.

The minimum required dimensions for the floor protector are shown in the previous section. It must extend no less than 400mm in front of the door opening, no less than 200mm either side of the door opening and extend under the heater. Minimum dimensions for the 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 Clause 2.2, 3.3.1, & 3.3.2.

#### 1.4. REDUCING CLEARANCES TO COMBUSTIBLES

If it is necessary to install a heater closer to a combustible surface than the stated requirements in this installation manual, it must be done in accordance with Australian Standard AS/NZS 2918:2018 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.

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

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

<u>Two spaced layers of continuous material</u> 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.

#### Example:

The side wall clearance for a heater is 650mm.

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

Calculate: 650mm x 0.40 = 260mm. This is the new side wall minimum clearance.

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



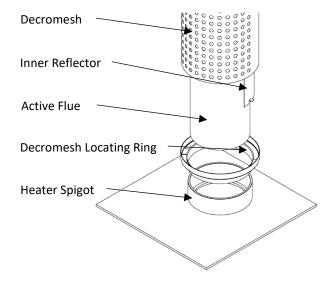
#### 1.5. INSTALLING THE FLUE

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

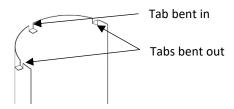
Full instructions on the installation of the flue will be supplied with the flue kit. These MUST be adhered to, including the minimum exit height from the top of the floor protector being not less than 4.6m, and the minimum exit height above the roof line of roof ridge as detailed in the instructions.

The flue must be fitted with one of the following:

- 1) Rear Flue Shield 900mm long, minimum 160° arc, stainless steel unpainted rear flue shield with 25mm gap between it and the 150mm diameter active flue.
- Decromesh a full length, half radius perforated Decromesh flue shield (7.75" – 8" diameter) extending from the heater through into the drop box penetrating the ceiling. The base of the decromesh must be fitted with the Decromesh Locating Ring supplied with in the heater.

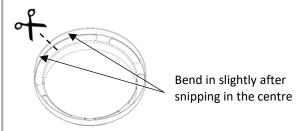


A 900mm half round inner reflector must be fitted inside the rear of the Decromesh. Using tin-snips, cut 10mm tabs into the top and bottom of the inner reflector and bend out to create an air gap between it and the outer Decromesh.



**Important:** The base of the Decromesh Flue Shield must be fitted with the vented Decromesh Locating Ring supplied with the heater.

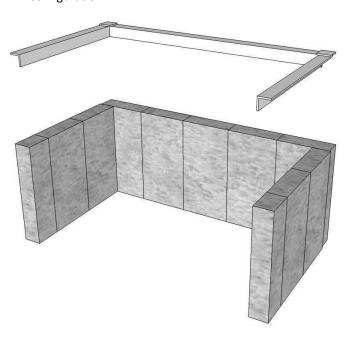
Depending on the supplier, Decromesh Flue Shield can be one of three sizes – 200 mm, 7 ¾ inch, or 8 inch diameter. The Decromesh Locating Ring will fit the two smaller diameters but not the 8 inch. In this scenario, snip through the outer ring with tin-snips, as shown in the diagram below. Bend the two "arms" in slightly so their ends do not protrude out when fitted. Ensure the snipped section is at the rear of the flue, out of sight.





#### 1.6. INSTALLING FIRE BRICKS

- 1) Remove the box of bricks (9 @ 230x115x38mm and 2 @ 230x55x38mm) from inside the heater.
- 2) Lift the steel angle brick retainer and fit the bricks standing on end around the sides and back of the heater. There may be some gaps left between the bricks, but this is not an issue since they will fill up with ash as the heater is used. Refer to the diagram below for brick configuration.



### 1.7. INSTALLING BAFFLE PLATES

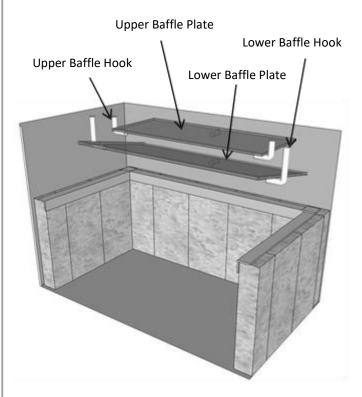
Fit the upper (smaller) baffle plate first, then the lower (larger) second.

Upper baffle plate  $-400(w) \times 160(d) \times 5(h)$  mm.

- 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.
- 2) Slide the plate back so that it rests on the upper support rod on rear wall of the firebox.
- 3) The upper baffle plate should be in a horizontal orientation.

Lower baffle plate – 495(w) x 250(d) x 6(h) mm

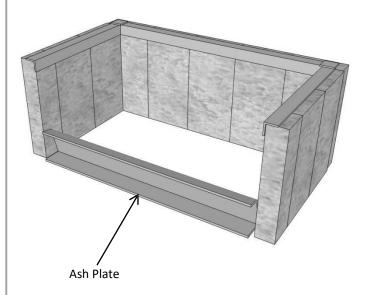
- 1) Slide the lower baffle plate up and over the lower set of support hooks welded to the top of the firebox.
- 2) Slide the plate back so that it rests on the lower support rod on the rear wall of the firebox.
- Unlike the upper baffle plate, the lower baffle plate rests on a slight angle sloping down and back to the rear of the firebox.



#### 1.8. 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.

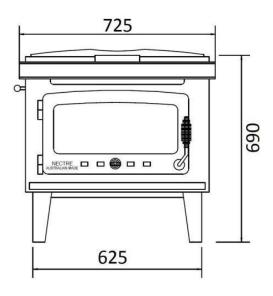
When positioning the ash plate, ensure that the front top edge is flush against the inside edge of the firebox beneath the door opening.

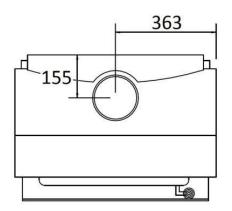


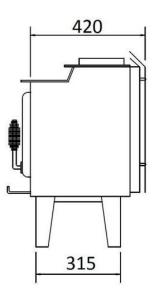


# 1.9. TECHNICAL DRAWINGS

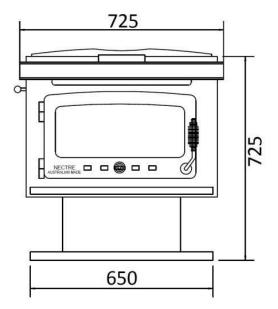
# 1.9.1. MK1 Legs

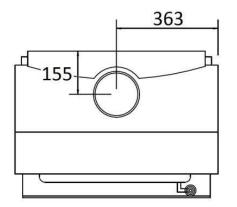


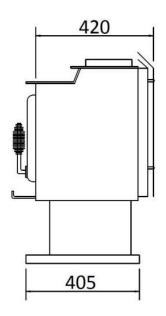




# 1.9.2. MK1 Ped











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