

# **Installation Instructions**

# Pedestal Models FS 500 LE FS 800 LE





# Insert Models IS 500 LE IS 800 LE

Pecan Engineering Pty Ltd 13 Acorn Road Dry Creek South Australia 5094 Email info@pecan-eng.com.au Phone: (08) 8349 8332 Fax: (08) 8260 6643 THE INSTALLATION INSTRUCTIONS IN THIS MANUAL APPLY TO THE BLAZE FS 500 LE & FS 800 LE FREE-STANDING, AND IS 500 LE & IS 800 LE INSERTT WOOD HEATER MODELS.

THEY HAVE BEEN TESTED FOR EMISSIONS AND **EFFICIENCY AND COMPLIES ACCORDING TO** AS/NZS 4012:1999 & AS/NZS 4013:1999.

# **1. INTRODUCTION**

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 Blaze 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 BLAZE 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 **REGUALTORY 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 PEDESTAL (FS) MODELS

#### 2.1 **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).

# 2.1.1 Standard Installation:



Model	Rear (X)	Side (Y)	Hearth width (A)	Hearth depth (B)		
FS 500 LE	125	350	900	300		
FS 800LE	175	425	1000	400		
(Measurements are in millimetres - mm)						

<sup>(</sup>Measurements are in millimetres – mm)

# 2.1.2 Corner Installation:



Model	Side (Z)	Hearth width (A)	Hearth depth (B)
FS 500 LE	100	900	300
FS 800LE	150	1000	400

(Measurements are in millimetres - mm)

# 2.2 Floor Protector (Hearth)

Unless the FS 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 2.1) are the minimum required for the floor protector. 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 15mm minimum thick fibre cement sheet with thermal conductivity not greater than 0.33W/m °K. 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.

- <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 Gap 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 FS 800 LE is 425mm.

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

Calculate:- 425mm x 0.40 = 170mm. This is the new side wall minimum clearance.

The shielding needs to be large enough so that none of the original clearances of 425mm 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 a full length, half radius perforated decro mesh flue shield extending from the heater through into the drop box penetrating the ceiling.

#### **Stainless Steel Flue Heat Reflector**

The heater is supplied with a 525mm long stainless steel heat reflector. This must be installed inside the decro mesh casing and positioned behind the flue immediately above the heater.

#### **Flue Spigot Heat Reflector**

A flue spigot heat reflector is also supplied inside the heater. This must be fitted to the flue spigot on the heater. The three lugs on the reflector hang inside the flue ring (spigot) with the reflector orientated at the rear of the heater.

This device reflects the heat radiating from the flue spigot on to the rear wall.





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 INSERT (IS) MODELS

The dimensions given below for the Blaze IS 500 LE and IS 800 LE models represent the minimum clearance to combustible materials, i.e. mantle-piece, when installed in a non-combustible fireplace.

For variations to clearances relative to a combustible mantlepiece refer to AS/NZS 2918 Clause 3.4.2.



	MODEL	X (Height to Mantel-piece)	Y (Width between columns)	A (Hearth Width)	B (Hearth Depth)
	IS 500 LE	1100 (500 above air vent)	900	900	450
	IS 800 LE	1500 (850 above air vent)	1080	1000	600

(Measurements are in millimetres - mm)

### **Floor Protector (Hearth)**

The dimensions given in the table above are the minimum required for the floor protector. 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 22.5mm minimum thick fibre cement sheet with thermal conductivity not greater than 0.33W/m <sup>o</sup>K. 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.

### 6. INSTALLING BAFFLE PLATE

- The baffle plate should be installed before installing the fire bricks.
- Place the baffle inside the firebox with the larger of the folds at the front and directed upwards (refer to diagram below for correct orientation).
- Raise the front of the baffle, tilting it back and raise so that it clears and rests on the front support rods.
- Raise the rear of the baffle, bringing it forward enough to clear the rear support rods.
- Once clear of the rear support rods, push the baffle back so that it is resting hard up against the rear of the firebox.



# 7. INSTALLING FIRE BRICKS

## FS 500 LE & IS 500 LE – Brick Layout

- Place two full size (235 x 175 x 25) and one (235 x 140 x 25) along the back
- 2) Place once full size and one half size (235 x 85 x 25) along each side
- 3) Place two full size and one half size in the base
- 4) Place the two corner retainers on the corners to hold the bricks upright
- 5) Place a straight flat retainer over each of the other joins along the rear and sides



# FS 800 LE & IS 800 LE – Brick Layout

- 1) Place three full size (285 x 175 x 25) along the back
- 2) Place two full size along each side
- 3) Place three full size in the base
- 4) Place the two corner retainers on the corners to hold the bricks upright
- 5) Place a straight flat retainer over each of the other joins along the rear and sides



# **8. TECHNICAL DRAWINGS**

# Model – FS 500 LE





# Model – FS 800 LE









