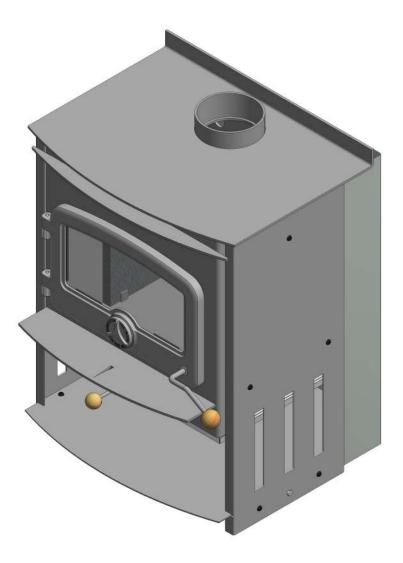


# Southern Series Woodburners

Southern Series Woodburners - Lewis, Lindis, McKenzie

# Installation Instructions



# Note: Flue System Casing

Flue system may require to be double lined to comply. Ref ASNZS:2918:2001 4.3 Flue pipe casing

# Visit www.warmington.co.nz for specs, DWGs and PDF uploads of fires

#### Fire, flue system and instructions to comply with ASNZS 2918:2001 & Building Code C/AS1 7.5 Open Fires

Keep these instructions for further reference. Ensure that you have the correct and current installation details for the Warmington Fire.

Installation

The Warmington unit is to be installed by a certified Warmington installer or an approved NZHHA installation technician.

**IMPORTANT** 

Read all the instructions carefully before commencing the installation. Failure to follow these instructions may result in a fire hazard and void the warranty.



ModelLewis					
Serial No: LECA					
Emission Report No: 06/1390 Applied Research Services LTD TESTED TO AS/NZS 4013. BURN ONLY UNTREATED WOOD WITH MOISTURE CONTENT LESS THAN 25% (DRY BASIS) AVERAGE PARTICULATE EMMISSION FACTOR BURNING SOFTWOOD – <u>0.81g/kg</u> MAXIMUM AVERAGE HEAT OUTPUT BURNING SOFTWOOD - <u>10.1KW</u> OVERALL AVERAGE EFFICIENCY BURNING SOFTWOOD - <u>72.1%</u> Council Authorisation No. Ecan & Nelson: 071229					
When Tested in Accordance with <b>AS/NZS 4012</b> Performance may vary from tested values depending on actual operating conditions.					
Date of installation:/20					
ModelLindis					
Serial No: LNCA					
Emission Report No: 06/1385 Applied Research Services LTD TESTED TO AS/NZS 4013. BURN ONLY UNTREATED WOOD WITH MOISTURE CONTENT LESS THAN 25% (DRY BASIS) AVERAGE PARTICULATE EMMISSION FACTOR BURNING SOFTWOOD – <u>1.19 g/kg</u> MAXIMUM AVERAGE HEAT OUTPUT BURNING SOFTWOOD - <u>13.3 KW</u> OVERALL AVERAGE EFFICIENCY BURNING SOFTWOOD - <u>71.9%</u> Council Authorisation No. Nelson: N0019 When Tested in Accordance with AS/NZS 4012 Performance may vary from tested values depending on actual operating conditions. Date of installation://20					
ModelMcKenzie					
Serial No: MCCA					
Emission Report No: 0009 Spectrum Laboratories LTD TESTED TO AS/NZS 4013. BURN ONLY UNTREATED WOOD WITH MOISTURE CONTENT LESS THAN 25% (DRY BASIS) AVERAGE PARTICULATE EMMISSION FACTOR BURNING SOFTWOOD – <u>1.46 g/kg</u> MAXIMUM AVERAGE HEAT OUTPUT BURNING SOFTWOOD - <u>18.57 KW</u> OVERALL AVERAGE EFFICIENCY BURNING SOFTWOOD - <u>65.12 %</u> Council Authorisation No. Nelson: N0020 When Tested in Accordance with AS/NZS 4012 Performance may vary from tested values depending on actual operating conditions. Date of installation://20					
Due to continued product improvement, Warmington Ind LTD reserves the right to change product specifications without prior notification. All dimensions are in mm					



# **GENERAL INFORMATION**

Model	Maximum fuel load (kg)	Firebox volume (L)	Estimated output (kW)	Peak output (kW)	Emission level (g/kg)
Lewis	4.77	49.8	16	10.10	0.81
Lindis	6.03	63.7	19	13.30	1.19
McKenzie	6.60	80.7	25	18.57	1.46

Note: Estimated output is a predicted maximum output including radiant heat from the flue system. Peak output is a tested value while running hot, according to AS/ NZS 4012.

# **GENERAL CHARACTERISTICS**

#### **Double Skin**

The Southern Series firebox is a radiant/ convection stove. It has an inner and outer skin whereby room air flows between the surfaces, thus becoming hot and efficiently heating the room. A convection air plenum is positioned on the rear of the firebox which is directed through a duct across the top of the heater moving hot air through the room.

#### **Burns Twice**

This statement is applied to many modern stoves. The combustion chamber is very efficient – air and volatile gases mix together and are more fully burnt. Spent gases exit through the flue.

#### **Heat Output**

A peak output of approximately 10.1Kw (Lewis) 13.3Kw (Lindis) to 18.57Kw(McKenzie) can be expected with dry soft wood. A maximum peak heat output of approximately 15 - 25Kw can be expected with dry wood. Due to the clean air requirements there is reduced control of the minimum heat out put and the fires have limited burn periods. The height of the flue system can have an effect on the draw, control and burn periods of the fire. The stove can heat an area of approximately 150 - 250 sq metres.

#### Construction

The firebox is constructed from 6mm steel plate with some fairings made from 1.6mm steel. The outer skin and tray are constructed from 3mm and 1.6mm steel plate. The unit has a cast iron door and 5mm Robax glass.

#### Finish

High temperature steel parts are finished with a matt black high temperature paint designed to withstand the rigors of normal combustion.

#### Testing and Clean Air Approval

The Southern Series range of fires have been tested and approved to ASNZS 2918:2001 specifications for solid fuel burning heaters and also to AS/NZS 4012 giving compliance with MFE (Ministry for the Environment New Zealand) clean air requirements in New Zealand and Australia. The stove has not been designed to operate with the door open for long periods. Clean air testing is conducted with the door closed. Contact with your local territorial authority to check for local compliance.

#### **Glass Door**

When in operation, the full beauty of the combustion process can be seen through the large ceramic-glass window. This window is kept clean by the inlet air passing from top to bottom over the glass. Any build up of residue that may occur on the glass can be removed with a mild abrasive liquid cleaner or proprietary stove glass cleaner. Wet wood is more likely than dry wood to produce window-marking emissions.

## Flue System

The installation and construction of the flue system must comply with ASNZS 2918. The fire requires a Warmington Tested and approved flue system only, as tested to ASNZS 2918. The tested flue system should not be modified in any way without the written approval of the manufacturer. Any additional flue components to the flue system must comply with ASNZS 2918.

#### **Floor Protection**

Floor protectors are normally designed to suit each individual "setting". The installation and construction of the floor protector must comply with ASNZS 2918. The fire requires an "ash hearth" (floor protector) as needed for some types of wood burners. An insulating floor protector/ hearth is not required.

#### Wetback

On special order a wetback model can be supplied. This unit acts as a hot water booster, producing about 2.5kW. The wetback sits above the firebox baffle. 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. Note: wetbacks cannot be fitted to fires that are installed in any area that falls under clean air regulations, contact your local territorial authority for local compliance.



# OPERATION

#### Storing/Drying Fuel

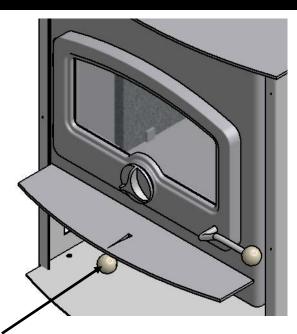
Damp wood is dried naturally while it is stored. Use dry timber preferably cut and stored under cover from the previous year.

### **Burn Control and Operation**

The primary air control (damper knob) regulates the amount of air drawn into the stove and thus the combustion rate. Turing the air control clockwise will let more air into the fire thus giving you a higher peak power output, shorter burn time. Turning the air control knob anti-clockwise will give you a longer burn time, however you will get a lower peak power output.

- When lighting the stove, the air control should be fully open (turn the air control wooden ball 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. Do not run the fire for long periods with the door ajar as damage may result.
- 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.
- 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.

## DAMPER CONTROL POSITION



## Damper knob

Turn clockwise to open (more air) Turn anticlockwise to close (less air)

## **Removing Ashes**

When you use your fire for a few weeks you will find that ashes accumulate in the firebox. The ashes can be removed easily through the fire door when the fire is at its lowest, such as first thing in the morning, or when it is completely out. The amount of charcoal in the ash is often a good indicator of how well you are operating the heater. 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 to 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 appliances work best when a small amount of ash is left approximately 25mm deep in the firebox after cleaning, this aids with stable burning. The ash should be placed in a noncombustible 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 the flue gas path, it offers a large cooking surface. Ideal for entertainment at home or cooking for holiday homes and farm cottages. If spillage occurs, clean the surface with a soft cloth and dish washing liquid, avoid scratching the surface.



## MAINTENANCE

The operation, components and general condition of the fire and flue system need to be checked annually, or more frequently if required. Repair or replace parts when necessary. For more information, contact your local retailer.

The chimney, firebox are to be cleaned and swept 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 anti-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.

#### **Firebox Maintenance:**

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 non-use summer months than in winter. The stoves life can be greatly extended by cleaning the firebox interior at the end of winter and spraying with Stovebright high temperature black paint.

#### In the event of a soot or creosote fire:

- Alert all the people in the house. Either have them leave, or be ready to leave.
- Call the fire department.
- Suppress the fire the best you can until the fire department arrives, being careful of your own safety. Be sure you always have a way out of the house should the fire get out of hand.
- Close the air inlets of the appliance.
- Discharge a dry chemical household fire extinguisher into the appliance.
- Use a chimney fire extinguishing product (water on the base of the fire will turn to steam and aid to put out the fire)

## FACTORY USE ONLY

Check List			
Baffle			
Holding Down Brackets			
Check Door Seal			
Check Damper			
Bricks (If Required)			
Serial Number Check			
Loading Badge			
Packed By			

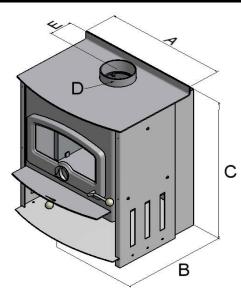


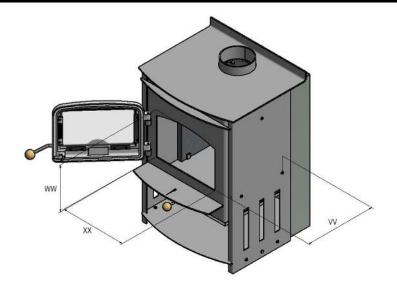
# INSTALLATION

#### Important Notes:

- This is a general installation guide only. Contact a "NZHHA Installer" for installation advice or go to <u>www.homeheat.co.nz</u>, then select <u>Members</u> & follow instructions to find a certified NZHHA SFAIT installer.
- Install to AS/NZS 2918:2001.
- Install to manufacturer's specifications.
- All new installations require a permit.

# **FIREBOX DIMENSIONS**





Dektite Flashing

Description		Lewis	Lindis	McKenzie
Firebox width	Α	580	660	660
Firebox depth	В	580	580	680
Firebox height	С	860	860	860
Flue diameter	D	150	150	150
To flue centre	Е	191	191	191
Ceiling height	F	2400	2400	2400
Minimum from fire to ceiling	G	1500	1500	1500
Total height from floor protector	Н	4600	4600	4600
Internal firebox depth	vv	385	385	485
Internal firebox height	ww	250	255	255
Internal firebox width	ХХ	360	430	430
Emission level (g/ kg)		0.81	1.19	1.46

Minimum Flue Height				
Flue height	3600			
Measured from top of cabinet	C + 3600			

# **Floor Protection**

Floor protectors are normally designed to suit each individual "setting". The Southern Series requires a "ASH ONLY" floor protector as needed for some types of wood burners. 

 Roof
 Combo-Liner

 Framing
 S/S Ceiling Plate

 Flue
 Flue

 Warmington
 Double Flue

 Shield
 Shield

ADD Cowl Flashing Cone

# Warmington 🍐

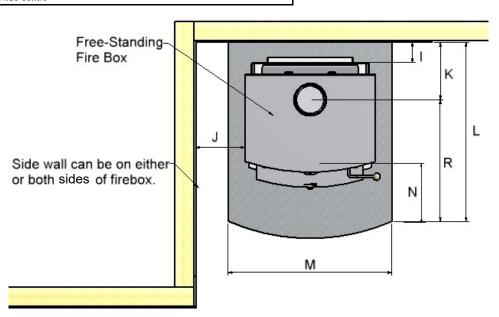
# **CLEARANCES TO COMBUSTIBLE MATERIALS**

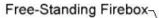
Description		Lewis	Lindis	McKenzie	
To wall behind	1	100	100	100	
To wall side	J	250	300	350	
To flue centre	K	288	288	288	
Hearth depth	L	904	904	1004	
Hearth width	М	760	830	830	
Hearth projection*	N	300	300	300	
To flue centre	0	363	391	425	
Hearth depth	Р	1129	1169	1318	
To wall side	Q	66	66	100	
Hearth projection**	R	616	616	716	
To flue centre	S	513	553	601	
* Measurement taken from front ash lip					
** Measurement taken from flue centre					

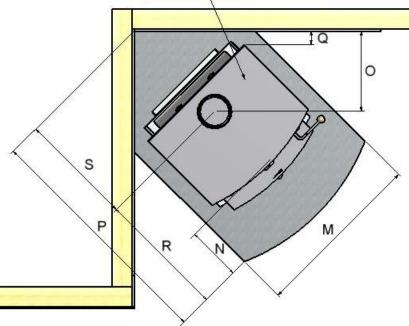
#### Note: Non-combustible clearances

If installing into non-combustible surroundings, refer to ASNZS:2918:2001 3.2.1. The clearance to a non-combustible surface (including walls) must be at least 100mm for maintenance access.

Non-combustible surfaces, including walls, finishing and framing without flue shield e.g. concrete/ block/brick/ACC block. Floor protector (ash hearth) only required if installed on a heat sensitive floor material.

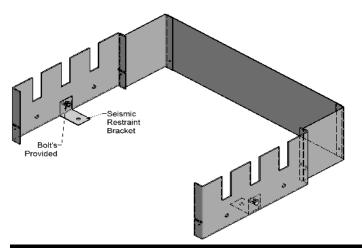






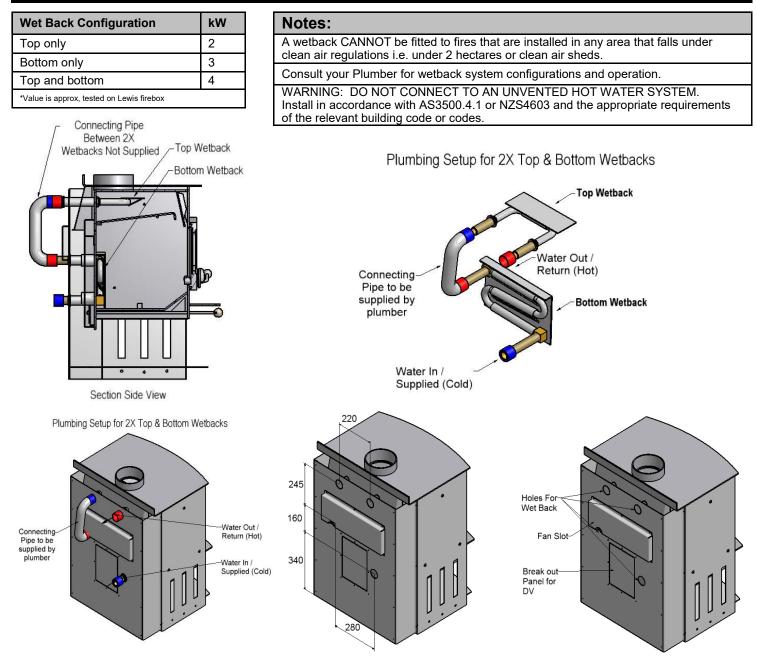


## SEISMIC RESTRAINT FIXING



- Remove bottom tray (remove bolts at back of tray and slide forward to remove).
- Drill through floor protector and ground as required
- Bolt seismic restraint brackets to floor using 2x M8 bolts (bolts should be appropriate to floor material).
- Replace bottom tray (remember to fix it back to the firebox).

# WETBACK INSTALLATION (OPTIONAL)



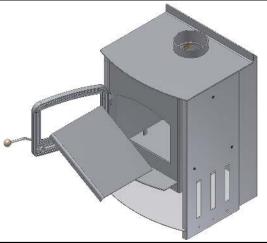
#### 1 September 2018

# Warmington

# **BAFFLE FITMENT AND REMOVAL**

## Step 1:

Tilt Southern Series baffle on an angle and slide into the firebox. Make sure you have the correct size baffle for your model of fire. Note: for the McKenzie, place K-wool on top of the baffle.



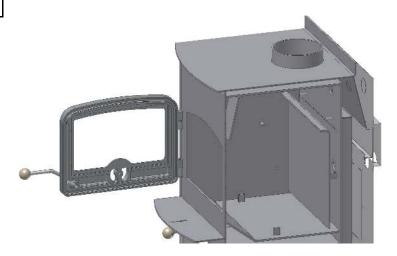
# Step 3:

Move baffle forward to sit on pins.



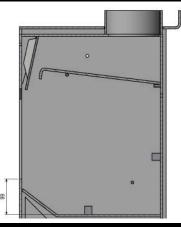
# Step 2:

Rotate baffle 90 degrees and push baffle to back of firebox.



# Step 4:

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

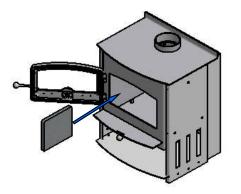


# **BRICK LAYOUT AND FITMENT**

**Note:** The Lewis and Lindis are supplied with 2 x firebricks (one each side). The McKenzie is supplied with 4x firebricks (2x large - 240x240mm and 2x small - 240x125mm). The small bricks sit beside and to the back of the larger bricks (on each side) in the McKenzie.

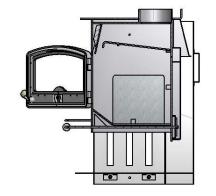
## Step 1:

Unwrap supplied bricks, open door and locate the brick support brackets inside the firebox on both sides.



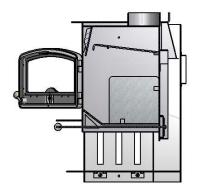
## Step 2:

Place brick inside firebox hard against firebox side & sit down on firebox base using the base brick support bracket first.



# Step 3:

Then slide fire brick back into back brick support bracket. This is the same for both bricks on each side.



# FLUE SYSTEM INSTALLATION

Flue details (all models)	No:	Size Φ
Cowl	1	150
Cone	1	150
Top Spider	1	150
Liner Diameter Slip	1	250
Flue Diameter S/S	1	150
Flue Diameter Hi Therm Black	2	150
Combo 250/200 X 1200MM Galv	1	250
Ceiling Plate	1	150
Ceramics	4	
Double Flue Shield	1	To suit 150

## Notes:

Flue system may require to be double lined to comply. Ref ASNZS:2918:2001 4.3 Flue pipe casing

It is the responsibility of the installer to ensure that the installation of the flue kit complies with AS/NZ 2918:2001, the appliance manufacture's specifications for flues and that relevant Local Body requirements are adhered to.

ADD Cowl

Flashing Cone

Top Spider Bracket

-600 Slip for 1800

Flue Only

-S/S Flue Pipe

Galvanized Combo

Outer Casing

-Ceiling Plate

Screws & Spacers

Hi-Therm Flue Pipe

Double Flue Shield

(if ordered)

# FLUE SYSTEM INSTALLATION GUIDE

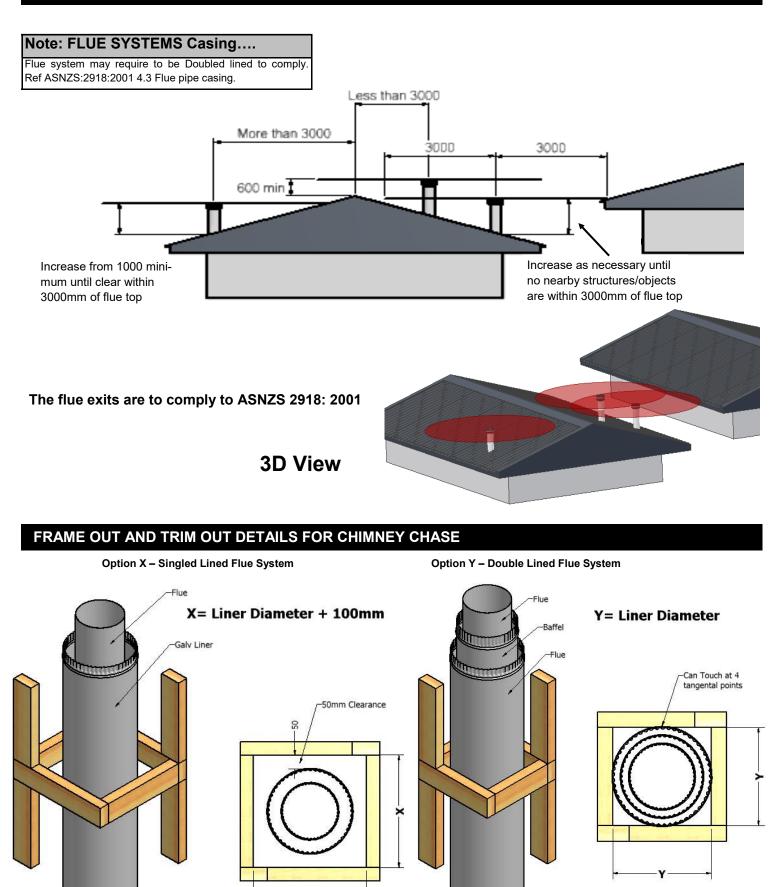
This flue kit has been manufactured in accordance with AS/NZS 2918:2001 and tested to Appendix F. To ensure safety, this flue kit must be installed as outlined in these instructions. Heater and flue pipe clearances from combustible walls must be in accordance with heater manufacture's specifications and AS/NZS 2918:2001. These installation instructions are for tested appliances only.

**Warm**ington

- Locate heater in its proposed position and mark a point on the ceiling that is directly above the centre
  of the heater's flue outlet. Check that the heater's location allows the outer casing to clear all
  structural roof timbers.
- Cut a 250mm square hole in ceiling. Directly above, cut a hole in roof to accommodate outer casing.
- Fit timber nogs around ceiling and roof holes, i.e. Nogs form a 250mm square aperture, which allows air to circulate freely over the outer casing surface.
- Position the outer casing so that it is flush with the underneath of the ceiling and protrudes through the roof the required height (Refer to AS/NZ 2918:2001 if more details are required. When calculating roof penetration height, allow for an extra 500mm that can be achieved by using the outer casing slip extension. If the flue is within three metres of the ridge, the outer casing must protrude at least 600mm above the ridge of the roof. If the distance from the ridge is more than three metres, the outer casing must protrude at least 1000mm above roof penetration.
- Fix an appropriate flashing around the outer casing to seal onto the roofing material.
- Assemble Flue Pipes together ensuring seams are in line. Secure each joint with three rivets or selftapping screws. Flue Pipes must be assembled with crimped ends down (towards heater).
- Place Ceiling Plate over heater flue spigot, ensuring the folded edge up stands are facing ceiling.
- From the roof, lower Flue Pipes through Outer Casing into position. Ensure not to scratch the Hi Temp Flue coating. The Hi Temp Coating can be touched up with an approved Spray can (Stovebright). NOTE: Some fires require the crimped end of the flue that fits into the Fires flue spigot to be trimmed back to from a snug fit. Seal flue to Fire box spigot.
- From the roof, slide the Inner Casing into the Outer Casing, around the flue, until it rests 12mm above ceiling level on the Swage Ring of the Outer Casing.
- Before securing the Outer Casing Slip Extension to the Outer Casing with three rivets or self tapping screws, ensure the Flue Pipes extends above the top of the Outer Casing Slip Extension 145mm APPROX. The fitment of the Cowl, Flashing Cone and Flue is required to form a seal by the flange on the Cowl. Adjust Slip Extension to obtain this measurement. If minimum roof penetration heights described earlier can not be achieved, add sufficient stainless steel Flue Pipe.
- Fit Top Spacer Bracket to the Flue Pipe making sure the lugs fit snugly inside Outer Casing Slip Extension. Make sure Top Spacer Brackets fits hard down onto Outer Casing Slip Extension.
- Fit Flashing Cone over the Flue Pipe and push down firmly onto Top Spacer Bracket. Optional to secure with a rivet or self-tapping screw. The Flashing Cone should be flush with or 5mm above the finished Flue Pipe.
- Fit ADD Cowl but do not secure permanently, as removal for flue cleaning will be necessary. The Cowl will fit tight down onto the Flashing Cone forming a seal—ensure that the seal is formed. (The Cowl, Flashing Cone and Flue can be secured with a Stainless Steel screw but provision must be made for the removal of the Cowl for cleaning of the flue system.
- Fasten Ceiling Plate to ceiling using screws and spacers provided. Ensure an even air gap around Flue Pipe when fixing. Remove protective plastic from Ceiling Plate. N.B. 12mm air gap between ceiling plate and ceiling must be maintained.
- Fit of the Flue Shield, fit Bracket to Flue Pipe above firebox and the bracket into the flue spigot on the fire.. Attach S/S Reflector to brackets, ensure that the plastic coating is removed from all the surfaces before lighting the fire.



# FLUE HEIGHT MINIMUM DETAILS



Due to continued product improvement, Warmington Ind LTD reserves the right to change product specifications without prior notification.

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## GENERAL NOTES: ASNZS 2918 : 2001

## NOTES:

- Fire operational and maintenance instructions can be downloaded from www.warmington.co.nz
- Warranty for full details on product warranties, contact your local authorised Warmington retailer.
- Correct installation, operation and maintenance must be maintained to comply with Warmington warranty.
- The appliance and flue system must be installed in accordance with ASNZS2918:2001 and the appropriate building codes.
- The flue system and fireplace is to be swept annually or more frequently if required.

#### WARNINGS:

- 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 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 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 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 e.g. GLASS PANELS OR CERAMIC TILES, MAY RENDER THE INSTALLATION UNSAFE.



Industries 1994 LTD PO Box 58652, Botany 2163, Auckland