

# Outdoor Roof Penetration Flue System - Installation Manual



# metrofires

## Outdoor Flue Systems

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## **⚠️ WARNING!** Important Information

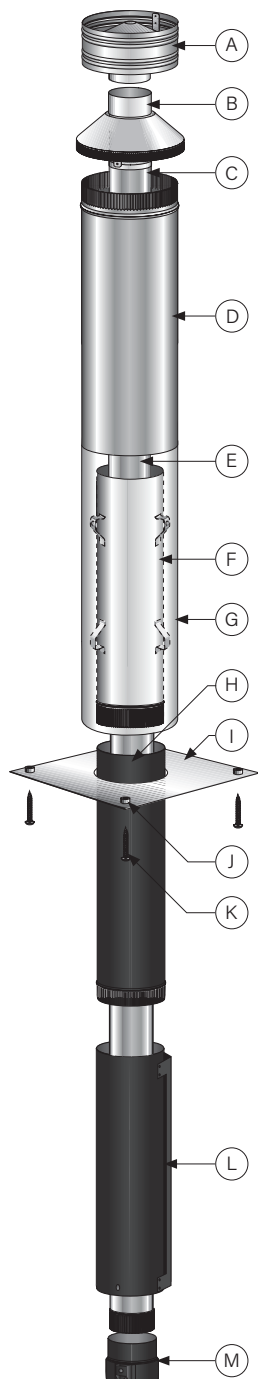
**THIS FLUE KIT HAS BEEN MANUFACTURED IN ACCORDANCE WITH AS/NZS2918 & TESTED TO APPENDIX B. TO ENSURE SAFETY THIS FLUE KIT MUST BE INSTALLED AS OUTLINED IN THESE INSTRUCTIONS AND THE APPROPRIATE REQUIREMENTS OF THE RELEVANT BUILDING CODE OR CODES.**

- Wood fire and flue clearances from combustible walls must be in accordance with the wood fire manufacturer's specifications and AS/NZS2918.
- These instructions are for the Metro Outdoor 850B, 850P and 850T for outside / external installations only.

## **⚠️ CAUTION!** Important Information

- Mixing flue system components from different sources or modifying the dimensional specification of components is not permitted and will result in hazardous conditions. Where such action is considered outside of these installation instructions, the manufacturer should be consulted in the first instance.
- It is the responsibility of the installer to ensure that the installation of this flue kit complies with AS/NZS2918, the appliance and flue system manufacturers specifications and that the relevant building codes are adhered to.

## Outdoor Roof Penetration flue system components



### Outdoor 850 Roof Penetration Flue System Components

- (A) 1 x Anti down-draught cowl (ADD)
  - (B) 1 x Combination bracket casing cover
  - (C) 1 x 1200mm length of 150mm diameter stainless steel flue pipe
  - (D) 1 x 1200mm x 253mm diameter galvanised outer casing slip extension
  - (E) 2 x 1200mm length of 150mm diameter stainless steel flue pipe with spacer brackets
  - (F) 1 x 1200mm x 200mm diameter galvanised inner casing with spacer brackets
  - (G) 1 x 1200mm x 250mm diameter galvanised outer casing
  - (H) 1 x 1200mm x 200mm diameter stainless steel upper outer casing (satin black finish)
  - (I) 1 x ceiling plate (500mm x 500mm)
  - (J) 4 x ceramic spacers
  - (K) 4 x self tapping screws
  - (L) 1 x 1200mm x 200mm diameter stainless steel lower outer casing with flue shield/bracket attached (satin black finish)
  - (M) 1x OBM flue spigot adaptor
  - (+) 1 x plastic bag of assembly bolts
- 1x M6x16mm S/S dome head socket screw
  - 1x M6 ZP nut
  - 3x M6x12mm S/S dome head socket screws
  - 4x 6mm S/S flat washers

# Installing the flue system

1. Locate the outdoor fire in its proposed position adhering to all safety clearances and if necessary mark a point on the ceiling that is directly above the centre of the wood fire's flue spigot. Check that the fire's location allows the outer casing to clear all structural roof timbers.
2. Cut a 250mm square hole in the ceiling. Directly above, cut a hole in the roof to accommodate the outer casing or frame out the open space if no continuous roof line exists.
3. Fit timber nogs around ceiling. i.e. Nogs form a 250mm square aperture that allows air to circulate freely over the outer casing surface.
4. Position the outer casing so that it is flush with the underneath of the ceiling and protrudes through the roof the required height.

*Please note: AS/NZS2918 states, 'the flue pipe shall extend not less than 4.6m above the top of the floor protector'. (Refer to Diagram B).*

- a) If the flue pipe is within 3 metres of a ridge, the flue pipe must protrude at least 600mm above the ridge of the roof. (Diagram C)
- b) If the distance from the ridge is more than 3 metres, the flue pipe must protrude at least 1000mm above roof penetration. (Diagram C)
- c) The flue pipe must be more than 3 metres from any nearby structure. (Refer Diagram C).

Additional inner and outer casings may be required to ensure the following:

- i) The correct minimum roof penetration height.
- ii) Sufficient overall height to encase the flue pipe which must extend a minimum of 4.6 metres from the floor protector. Refer Diagram B.

*Please note: The inner casing (F) should extend a minimum of 200mm above roof penetration. Do not secure the outer casing slip extension onto the outer casing, as final adjustment will be required when fitting cowl assembly. See Paragraph 11.*

5. Fix an appropriate flashing around the outer casing to seal onto the roofing material. Refer to the manufacturer's recommendations for correct fitting.  
*Please note: On iron roofs, fixings such as metal angle brackets (approximately 25mm x 25mm) can be fitted under the flashing to securely fix the roof to outer casing.*
6. Fit the spigot adapter to the flue spigot of your Outdoor 850 fire. This section drops over the flue spigot with the fixing point located to the front of the fire. Fix into the flue spigot firmly using 1x M6x16mm dome head socket screw, washer and nut. The washer fits under the head of the bolt on the outside of the spigot adapter.
7. Lift 200mm liner with flue-shield attached over the spigot adaptor and locate using the three dome head socket screws supplied (do not tighten at this stage).
8. Place the ceiling plate over the 200mm liner and sit on top of the flue shield, be careful not to scratch the painted surface of the liner.
9. Assemble the 150mm flue pipes together ensuring the seams are straight, offsetting the seams will ensure a neat fit. Secure the pipes together using three evenly spaced monel rivets (the two lengths of flue with the three spacers tabs attached need to be the lower lengths of flue closest to the fire). From the roof lower the flue into position with the crimped end down. Make sure the crimped end is properly inserted into the flue spigot adaptor.

10. From the roof, lower the painted 200mm liner (H) swage down into position through the ceiling and join to the 200mm outer casing with flue shield. Install the 200mm inner casing (F) with the internal and external spacers tabs.
11. Before securing the outer casing slip extension to the outer casing with 3 rivets, ensure the flue pipe is either flush with or extends above the top of the outer casing slip extension by no more than 15mm. Adjust slip extension to obtain this measurement.
12. Push casing cover (B) (with spigot inside flue pipe) down onto the outer casing slip extension. The 3 locating brackets with holes must be on the outside of the outer casing slip extension and are secured using 3 rivets.
13. Fit cowl but do not secure, as removal for flue cleaning will be necessary. Deform or ovalise the stub of the cowl to ensure it is a tight friction fit.
14. Fasten ceiling plate to ceiling using screws and ceramic spacers provided. Ensure an even air gap around flue pipe when fixing. Remove protective plastic from ceiling plate.

*Please note: A 12mm air gap between ceiling plate and ceiling must be maintained using the ceramic spacers provided.*

Tighten the two rear flue shield fixings and leave the front fixing fingertight. Leave all installation and operating instructions with the owner.

## Conditions of use

The wood fire must be operated in accordance with the manufacturer's instructions.

- The stainless steel flue pipe must be swept by mechanical means only. (We recommend mixed head or polypropylene brushes). Under NO circumstances should chemical flue cleaners, (soot destroyers) or steel chimney brushes be used.
- Only use newspaper or firefighters when lighting the fire; never burn colour printed brochures or junk mail.
- Flue pipes must be secured together with a minimum of three Monel Steel rivets equally spaced around the joint.

The paint finish appearance may change, depending on heater operation and is designed to be a maintainable finish. To maintain paint finish or touch up use only genuine Pioneer Aerosol. Available in high temp black and zinc finishes.

Outer casings can be touched up using Pioneer satin black aerosol paint.

The stainless steel flue pipe must be installed in accordance with this installation instructions, using flue componentry supplied by Pioneer. It is the responsibility of the installer to ensure no water leaks into the Flue System.

**FAILURE TO OBSERVE THESE CONDITIONS MAY NEGATE ALL PRODUCT WARRANTIES. REFER WWW.METROFIRES.CO.NZ**

# Minimum Heights for Outdoor Roof Penetration flue system (In compliance with AS/NZS2918)

## **CAUTION!** Important Information

- The Metro Outdoor flue system has been tested to and complies with AS/NZS2918. The Outdoor 850 fire is for outdoor use only and cannot be installed inside your home. The Outdoor 850 fire must not be installed into an enclosed outdoor area.
- External structures and the proximity of other buildings will differ for every installation. Before installation, make sure your Outdoor 850 will be located away from buildings, structures, vegetation, and any other combustible objects by the minimum clearances detailed within the Metro Outdoor Fire Installation Manual and Diagram C below.
- Your Outdoor 850 fire must be located on a non combustible, stable, level surface and secured by fixing points located in the pedestal base plate (850P) or by locking the braked castors on the trolley (850T) once the fire is in place.
- Plinth installation is an option using the OBM Levelling Kit supplied with the 850B model.

This Outdoor Flue System complies with AS/NZS2918 and its 4.6 metre height requirement (4.6 metre minimum from the top of the floor protector to the top of the flue pipe). However as external structures and the proximity of other buildings will differ for every installation, some situations will require additional flue height to comply with the standard. Please refer to Diagram C below. (All measurements in mm)

*Please note: AS/NZS2918 Section 4, details flue system installation requirements in full.*

