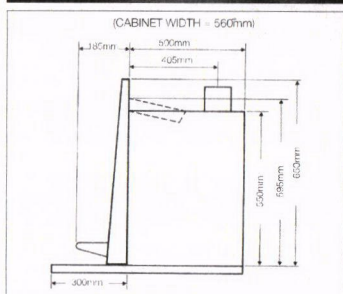


# APPLICATION



\*001\*

## Wood Fire Installation & Owner's Operation Manual



# metrofires

## ECO Insert Models

- ECO Trend Insert
- ECO Trad Insert

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## **⚠ WARNING!** Important Information

- **WE RECOMMEND YOU READ THIS ENTIRE MANUAL. BUT IF YOU DON'T, YOU MUST READ PAGES 2 & 5**
- **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.**
- **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!** Important Information

- **Mixing of appliance or flue-system components from different sources or modifying the dimensional specification or components may result in hazardous conditions. Where such action is considered, the manufacturer should be consulted in the first instance.**
- **Do not install this Metro if there is any sign of visible damage**

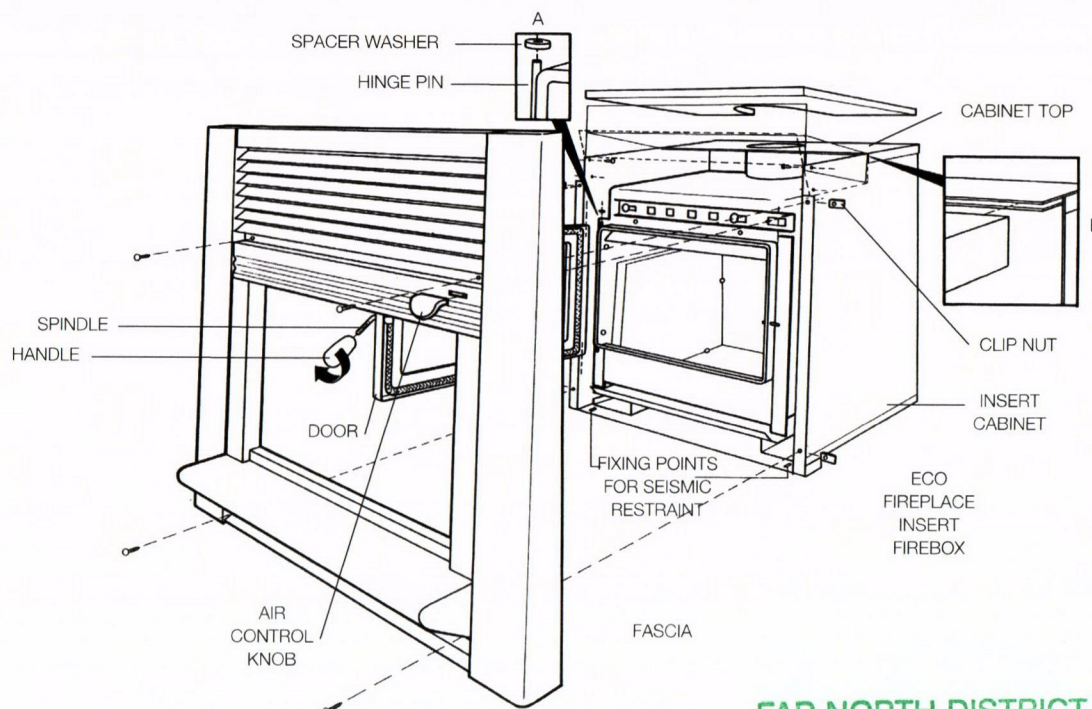
This Metro wood fire has been tested to and complies with AS/NZS 2918:2001 when installed in accordance with this manual. Please ensure you are fully conversant with this relevant standard and the contents of this manual. Correct installation is critical to the safe operation and performance of this wood fire.

### **Please take particular note of the following:**

- ECO Metro's should be installed with a Metro ECO flue system which has been developed to enhance the performance of Metro wood fires. A minimum length of 4.1 metres of 150mm diameter is required. Any alternative flue system may invalidate the Metro's emission approvals as some councils within New Zealand have made installation of Metro ECO flue systems with ECO Metros mandatory.
- The 150mm active flue pipe must be fully encased from the ceiling to the underside of the flashing cone at the top of the flue system, (i.e. there must not be any 150mm flue pipe exposed).
- All flue pipe joints must be sealed and riveted. The bottom of the flue pipe in particular **MUST** be fully sealed into the flue outlet of the Metro wood fire.
- Ensure a fibreglass seal is placed between the outer cabinet and the masonry to prevent air from within the room being drawn into the chimney cavity.
- In New Zealand, the Metro must be bolted through the floor protector into the floor to comply with the seismic restraint provisions of AS/NZS 2918:2001.
- The Metro fascia is coated in vitreous enamel or high temperature paint. Take care during assembly and when lifting or fitting the fascia that you do not damage this coating. Do not lift the Metro fascia with your fingers under the louvre's.

## Assembling your Metro wood fire

Diagram 1



# Assembling your Metro wood fire

All Metro Insert wood fires are packed in two heavy-duty cartons. The ECO Insert firebox is supplied in a heavy duty palletised carton, this carton is clearly labelled. The fascia and door are packaged inside a smaller separate carton. This carton is also clearly labelled to show the colour and coating finish of the fascia and door. Metro fascia's are coated in either vitreous enamel or stovebright high temperature paint. Having removed the packaging and located this manual, familiarise yourself with the illustrations on pages 2 & 3, and proceed as detailed below.

*Note: The Metro carton shows the model Metro you are about to install, enabling you to select the appropriate model's assembly instructions.*

## Metro ECO Insert

The ECO Insert firebox is supplied in a heavy duty carton and is secured to a timber pallet. The carton is labelled to show which model insert it is. Having removed the cardboard, timber and polystyrene packaging and familiarised yourself with Diagram 1 on page 2, proceed as follows: -

- Remove from within the firebox the plastic bag containing the bolt kit, two firebricks wrapped in a cardboard wrapper and the top baffle assembly.
- A "spacer" washer has been pre-fitted and taped to the top door hinge pin on the left hand side of the firebox (Refer Inset A, Diagram 1) remove this tape.
- Take the boxed door you previously removed from the centre of the fascia and unpack it. Taking the door in both hands with the spindle end in your right hand and outer face of the door facing you, attach the door to the firebox as follows: -
  - With the door in a 90 degrees open position, allow the lower hinge pin on the bottom left hand side of the firebox to pass into the hole provided in the bottom of the door frame.
  - Lift the door until the top of the door frame passes over the top hinge pin, then align the hole provided on the top face of the door frame and lower it down over the top hinge pin.
  - Take the door handle from the plastic bag and screw it onto the door spindle by turning it clockwise.
- Unwrap the two firebricks from the cardboard wrapper and fit the side bricks to each side of the firebox. Location lugs are fitted to the base and rear of the firebox to retain the side bricks in position, refer Diagram 2 this page.
- Remove the "cabinet top" which is packed inverted on top of the firebox and fit it into position "over" the cabinet sides as detailed in Diagram 1. Ensure the rear edge is fitted correctly as shown Diagram 1, Inset "B", the rear edge of the cabinet top must fit "into" the slot provided. Using two of the self tapping screws from the plastic bag, secure the cabinet top in place. Note, this panel can be fitted at two height's. If the height of the fireplace opening will allow, fit the cabinet top in the higher position, fit screws from "inside" the cabinet facing out.
- Ensure the insulating blanket is in position on the top of the cabinet.

- Remove the four speed clip nuts from the plastic bag and fit them to the holes provided in the front edge of the cabinet as shown in Diagram 1.

**ECO Insert Fan**– In all clean air zones, the Metro ECO Insert must be installed with Metro's ECO Insert fan which is a single speed, thermostatically controlled device. This fan must be permanently wired and therefore requires the services of a registered electrician. Fitting instructions for the fan are supplied with the fan module.

## Pre Installation

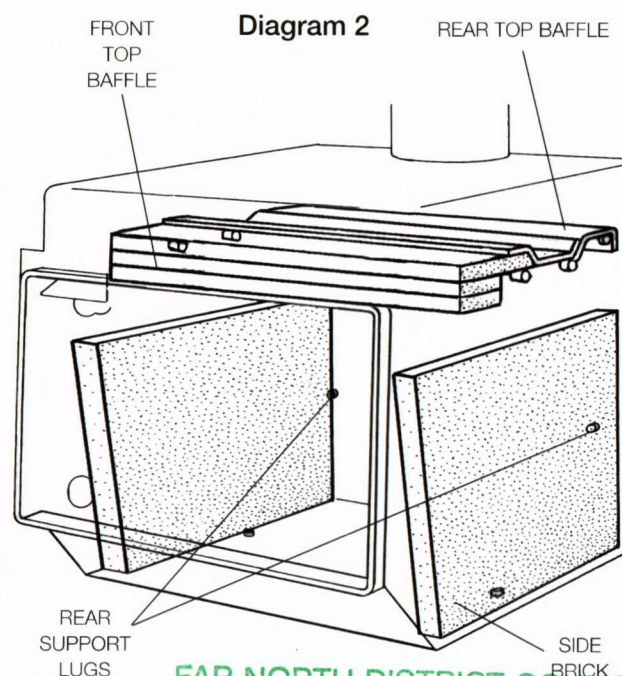
- Prior to installing your Metro fireplace insert into a fireplace cavity, it is important that certain clearances and other requirements are complied with as detailed below :-

## Fireplace Cavity

The chimney must be swept. Also: -

- Check for cracks and general overall condition. If repairs are necessary, they must be carried out by a suitably qualified person.
- Check the cavity dimensions to ensure the fireplace insert will fit. It is usually necessary to remove the fire bricks from the lower fireplace cavity.
- The base of the fireplace cavity on which the Metro fireplace insert will rest must be level. If it is not, it should be levelled using mortar.
- If an ash removal door exists in the base of the fireplace cavity it should be sealed shut to prevent air entering the cavity.
- If a timber or combustible mantelshelf exists above the fireplace opening, it should be a minimum distance above the top of the Metro's fascia, minimum distance is 340mm.

If less than the above minimum specified, a deflector or heat shield will be required to be fitted under the mantelshelf or to the top of the fascia.



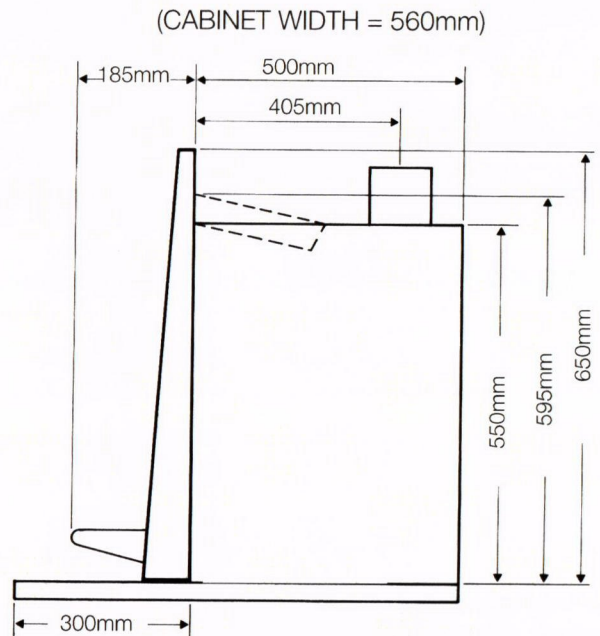
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## Floor protector requirements

Metro fireplace inserts are designed to be installed directly onto a concrete base. A non-insulating ash floor protector is required to project in front of the Metro and must extend a minimum of 200mm to each side of the door opening making the minimum floor protector width 825mm. The minimum floor protector projection forward of the Metro is 300mm as illustrated right.

Trend Fascia width = 810mm

Trad Fascia width = 805/874mm



## Installation

Position the Metro ECO Insert which is still attached to its wooden pallet directly in front of the fireplace cavity with the rear of the insert facing the fireplace opening. The fireplace insert assembly is bolted to the wooden pallet through its base panel at two points being each front corner. Remove both screws and slide the insert into the fireplace cavity taking care not to mark the floor protector. Discard the pallet.

1. Attach the fascia with the four longer screws that were supplied in the plastic bag, taking care that the air control lever passes through the slot provided in the fascia. Centralise and level the fascia on the fireplace insert door and secure the four screws.
2. Applying pressure to the door or inside the fireplace firebox (not the fascia) carefully manoeuvre the Metro until the rear of the fascia is just touching the front face of the fireplace surround. Taking care not to move the fireplace insert, remove the fascia and mark the position of the fireplace insert onto the fireplace base.
3. Using a masonry drill, drill into the chimney base through the two slots which the fireplace insert was secured to the pallet through. Check to ensure the fireplace insert hasn't moved and secure using suitable masonry anchors to comply with the seismic restraint provisions of the standard.
4. Remove the top baffle from inside the fireplace insert and the removable cabinet top. Check that the flue stub of the fireplace insert is in line by looking down the chimney, if not a stainless steel offset or flexi flue will be required.
5. Following the instruction sheet supplied with the flue system, proceed and fit the flue with all joints sealed and riveted with a minimum of three stainless steel or monel rivets on each joint.

6. With the flue pipe in position and sealed with a high temperature fire cement into the flue stub, drill through the hole provided in the front of the flue stub into the stainless steel flue pipe and secure with the 6mm bolt and nut supplied in the plastic bag.
7. Refit the top baffle into the firebox's upper chamber. Reposition the removable cabinet top ensuring it is correctly fitting as detailed on page 2 and secure in its upper position if possible. Note, if the adjustable height top can be raised slightly but not fully to its upper position, additional holes should be drilled to enable the top to be raised to this level.
8. Using a suitable rated insulation (fibretex 450 or similar) pack any gap that exists between the sides and top of the fireplace insert cabinet and fireplace surround.
9. If installing into a clean air zone, the Metro ECO Insert must be installed with Metros ECO Insert fan as detailed on page 3. Installation and wiring of this fan module is necessary prior to fitting the fascia, and full fitting instructions are supplied with the fan module.
10. Reattach the fascia, centralise and level with the door and ensure the air control is moving freely and secure all four screws.
11. Locate the air control knob which is included in the plastic bag and carefully work it onto the air control lever.

The Metro is now fully installed and ready for operation but it is preferable to defer lighting the fire for a day or two if possible to allow sealant used in the flue pipe joints to air dry. Alternatively it is recommended you burn 2-3 sheets of loosely crumpled newspaper at a time, approx once every hour over a 6-8 hour period.

## ECO Flue System Installation Manual



# metrofires

## ECO Flue Systems

### Freestanding Flue Systems

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## **⚠ WARNING!** Important Information

- Metro ECO Flue Systems must be installed to allow unrestricted air supply from either the ceiling cavity for an ECO Base Flue Kit, or above the roof line if the Base & Option Kits are both installed. Please read these instructions and familiarise yourself with the installation options and various components of the ECO Flue Systems
- The ECO Base Flue Kit must be installed into a "vented" flat ceiling cavity, or have an ECO Option Kit added to the flue system to provide an external air supply
- The ECO Flue Systems shall be installed in accordance with AS/NZS2918:2001 and the appropriate requirements of the relevant building codes
- Any modification to this flue system that has not been approved in writing by the testing authority is considered to be in breach of all approvals granted

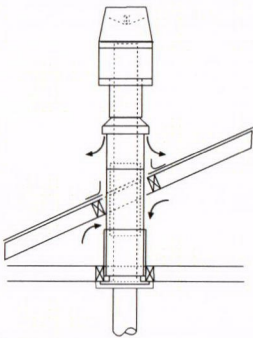
## **⚠ CAUTION!** Important Information

- Mixing of flue system components from different sources or modifying the dimensional specification or components may result in hazardous conditions. Where such action is considered, the manufacturer should be consulted.
- Prior to installing the assembled flue pipe into a masonry chimney cavity, take careful note to ensure there are no overhead power lines in close proximity.

## Installation Options ECO Flue Systems

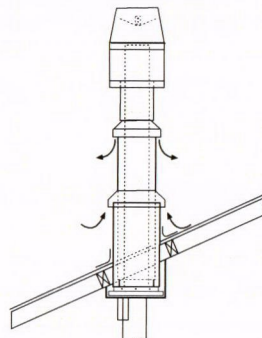
Detailed below are the more common installation methods for installing Metro ECO Flue Systems. To ensure a safe and efficient installation, this flue system must be installed as detailed below by either a registered installer, or someone competent in installing solid fuel appliances.

### Single Storey Installations



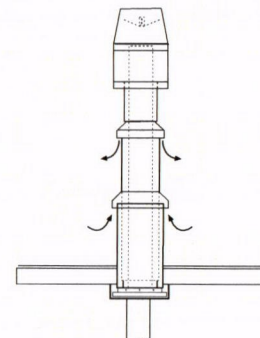
**FLAT CAVITY CEILING**

ECO Base Flue Kit only required as air is drawn into the flue system direct from the ceiling cavity.



**SLOPING CEILING**

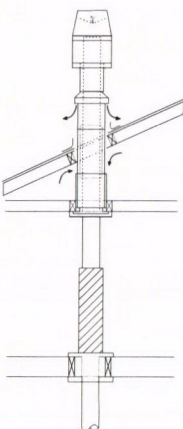
Both the ECO Base Flue Kit and ECO Option Kit are required to enable air to be drawn from outside the home.



**FLAT CEILING/ROOF**

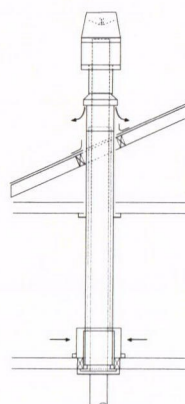
Requires both ECO Base Flue Kit and ECO Option Kit as per sloping ceiling unless a vented ceiling cavity exists.

### Two Storey Installations



**2ND FLOOR EXPOSED FLUE PIPE**

Requires an ECO Base Flue Kit only with additional lengths of Flue pipe, a floor penetration kit, 1 x 1200mm long mesh/screen and one 250mm dia. x 300mm long black in accordance with AS/NZS2918:2001.



**2ND FLOOR ENCLOSED FLUE PIPE**

Requires an ECO Base Flue Kit only with additional lengths of Flue pipe, 200mm & 250mm inner/outer combination liners. A 2nd floor vent cover and an additional ceiling plate with a 250mm diameter hole in accordance with AS/NZS2918:2001.

# Component Checklist ECO Base Flue Kit & ECO Option Kit

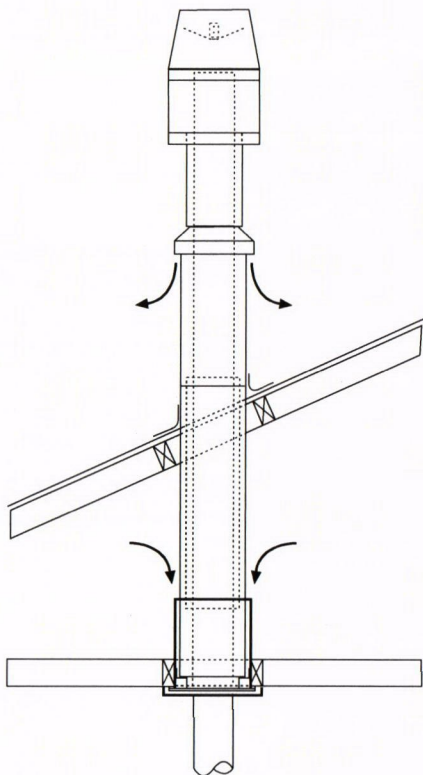
Metro offers both the ECO Base Flue Kit, which is designed to be installed on its own and the ECO Option Kit which is designed to be installed in conjunction with the ECO Base Flue Kit. The specific application for each of these two options is detailed below.

**Metro ECO Base Flue Kit** - Metro ECO Base Flue Kit is designed for installation into a building that has a "ceiling cavity" with unrestricted air supply as is the case with

conventional homes. A vented ceiling cavity is required as the Base Kit draws its cooling air from the ceiling cavity.

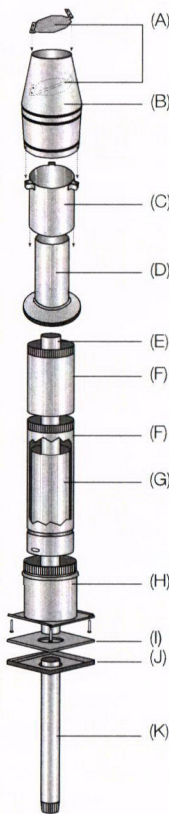
**Metro ECO Option Kits** - The Metro ECO Option Kit is designed to be "added to" the Metro ECO Base Flue Kit for installations that do not have a vented ceiling cavity and require the flue systems cooling air to be drawn in from above the roofline (outside the building).

## ECO BASE FLUE KIT ASSEMBLED

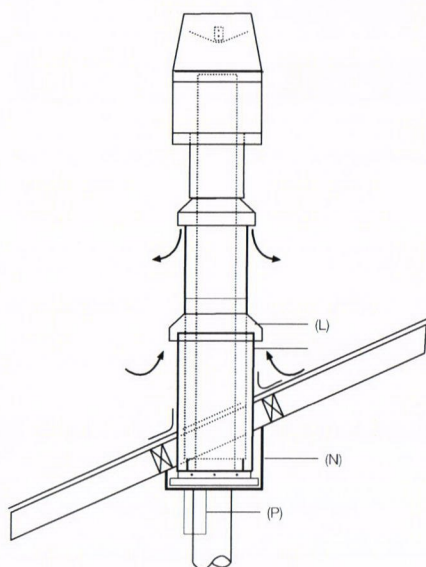


## ECO BASE FLUE KIT COMPONENTS

- (A) 1 x Stainless steel weather butterfly
- (B) 1 x Stainless steel ECO cowl housing
- (C) 1 x 225mm x 200mm diameter stainless steel outer casing extension
- (D) 1 x 480mm long stainless steel flue pipe extension with flashing cone
- (E) 1 x 1200mm x 150mm diameter stainless steel flue pipe
- (F) 1 x 1200mm x 250mm diameter galvanised outer casing with 750mm long slip section
- (G) 1 x 800mm x 200mm diameter galvanised inner casing
- (H) 1 x Galvanised mounting plate with brackets and 300mm long x 300mm diameter casing attached
- (I) 1 x insulation gasket
- (J) 1 x black clip-on ceiling plate
- (K) 2 x 1200mm lengths of 150mm diameter stainless steel flue pipe painted metallic black
- (+) - 1 x Plastic bag of assembly bolts

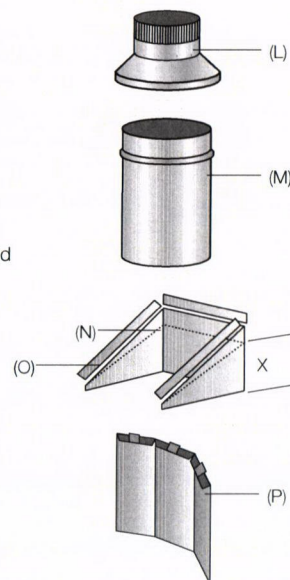


## ECO BASE FLUE KIT & ECO OPTION KIT ASSEMBLED



## ECO OPTION KIT COMPONENTS

- (L) External intake flashing cone
- (M) 300mm diameter outer liner extension
- (N) Drop box infill panel
- (O) Drop box edge covers
- (P) Ceiling plate mounted heat shield





# Installation Instructions ECO Base Flue Kit

Having positioned the wood fire in the desired location, check to ensure the wood fire and floor protector have adequate clearances/projections, and that the flue system is clear of ceiling joists, trusses etc. (refer to the Wood Fire Installation and Operation Manual).

*Note: ECO Flue Systems use stainless steel brackets enabling movement due to expansion, while centralising flue pipes and casings. These brackets may require resetting after transport, if they are too loose or tight during assembly;*

1. At a point directly above the wood fires flue centre, cut a 300mm square hole through the ceiling and a 250mm diameter hole through the outer roof lining providing it is non combustible (iron, tiles etc) otherwise cut a 250mm square hole through the roof lining. "Trim out" the top face of the ceiling using timber nog's creating a square aperture measuring 300mm internally.

*Note: Certain flashing manufacturers detail specific size and shape of the aperture to be cut for their flashing, which must be adhered to.*

2. Fit mounting plate (H) into the ceiling by sliding the 300mm diameter casing attached to the mounting plate up into the ceiling until the two upturned edges rest against the under side of the ceiling. Square the mounting plate to the wall and secure it in location with the four coach screws supplied, into the nogs just fitted. To further improve the rigidity of the installation, nail through the 300mm diameter casing at 4 points into the timber nogs.
3. Moving onto the roof with the 1200mm x 250mm diameter galvanised outer casing (F) with 750mm long slip section fitted, lower the slotted end of this casing (F) into the roof cavity until it locates inside the brackets on the top face of the mounting plate. Return back into the room and using the 2 x 6mm bolts and washers supplied, securely bolt the base of the 250mm diameter outer casing into the rivet nuts pre-fitted into the mounting plate brackets.

*Note: As there are two bolts, the outer casing can be rotated 180 degrees. Ensure the lock-form seam is rotated so the seam is sheltered as much as possible from the prevailing weather direction.*

4. Return back onto the roof and using a suitable flashing, weather proof the joint where the 250mm diameter outer casing penetrates the roof. Ensure the flashing used is compatible with the roofing material, and if fitting instructions are supplied with the flashing, these must be adhered to. Prior to fitting the flashing, by fitting brackets securing the outer casing (F) to the roof material will further improve rigidity of the installation.

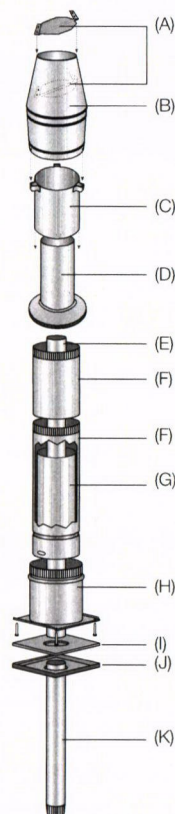
5. While on the roof fit the 800mm x 200mm diameter galvanised inner casing (G).

*Note: This inner casing has a top and bottom, the bottom end has both internal and external brackets while the top end has external only. Fit the bottom end of this inner casing (G) down into the 250mm diameter outer casing (F) until the casings lower external brackets locate on the internal swadge of the outer casing.*

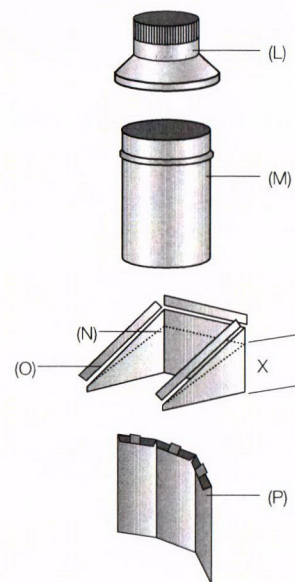
## **⚠ WARNING!** Important Information

- If there is timber or combustibles within 25mm of the outer casing (F) in a zone "above the top end of the inner casing (G) and below the roof line" an additional 200mm inner casing must be fitted.

### ECO BASE FLUE KIT COMPONENTS



### ECO OPTION KIT COMPONENTS



6. Moving back into the home, remove the plastic film from the ceiling plate (J) and place it black side down over the flue outlet of the wood fire. Using a high temperature black aerosol, spray around the hole in the centre of the white insulation gasket, and when dry lay this centrally on the ceiling plate.
7. Unwrap the two painted flue pipes (K) taking care not to mark the painted surface (use a metallic black Stovebright aerosol for touch ups) and proceed to assemble the three flue pipe sections as described below;
  - Smear an adequate amount of Pioneer fire cement inside the "top/un-crimped" end of both painted flue pipes (K).
  - Taking the unpainted stainless steel flue pipe (E) insert its top "un-crimped" end up through the mounting plate (H) and up into the casings until its bottom "crimped" end is 1250mm above the top of the wood fire.
  - Take one of the two painted stainless steel flue pipes (K) and fit its lower "crimped" end into the Metro wood fires flue outlet. Now lower the unpainted stainless steel flue (E) which is protruding down from the mounting plate so that it fully connects into the lower painted flue pipe (K). Ensure these two flue pipe sections are firmly connected and aligned, then secure with three stainless steel or monel rivets spaced equally around the joint.
  - Lift the two assembled flue pipe sections so the bottom of the lower section is 1250mm above the top of the wood fire, and repeat the above procedure to fit the remaining painted flue pipe (K).

- With all three flue pipe sections securely joined, lift this three section assembly out of the wood fires flue outlet, then move it slightly off centre and lower the flue pipe assembly "on top" of the wood fires flue outlet. Smear an adequate amount of Pioneer fire cement inside the wood fires flue outlet (move the flue pipe assembly as required to ensure the entire flue outlet is coated in fire cement) then lower the flue pipe back into the wood fires flue outlet, with the vertical flue seam facing the rear.
- 8. Taking the ceiling plate (J) with insulation gasket (I) fitted which are laying on top of the wood fire, with the flue pipe passing through them. Carefully lift them up the flue pipe trying not to mark the painted flue, and clip the ceiling plate onto the mounting plate.
- 9. While still on the ground, assemble the ECO vertical discharge cowl as follows;
  - Take the stainless steel weather butterfly (A) so the angled sections are facing up and fold "up" both arms at the slot provided to just over 90 degrees as shown.
  - With both arms and angled sections of the stainless steel weather butterfly (A) facing up, fit it into the stainless steel cowl housing (B), and secure in position through the holes provided with stainless steel rivets.

*Note: Once fitted the weather butterfly will be slightly angled within the cowl housing.*
- Now fit the base of the cowl housing (B) over the brackets of the outer casing extension (C) ensuring the 3 x pre-punched holes punched in its lower skirt align centrally over the three brackets attached to the casing extension as illustrated. Push the cowl housing down fully until its internal swage rests on the casing extension brackets (the brackets should be "just but fully" inside the base of the cowl housing). Drill through the three pre-punched holes in the cowl housing through the three brackets and secure with stainless steel rivets.
- 10. Making your way back onto the roof, slide the 750mm long slip section of the outer casing (F) until the top of this slip section is "level" **(+ or -10mm)** with the top of the 150mm stainless steel flue pipe, then secure this slip section of the outer casing with rivets.
- 11. Fit the 480mm long flue pipe extension/flashing cone (D), with the flashing cone at the bottom, fit its short flue section inside the top of the already installed 150mm diameter flue pipe. Ensure the three brackets extended below the flashing cone fit "outside" the outer casing slip section. Drill through the pre-punched hole in all three brackets into the outer casing slip and secure with rivets.
- 12. Taking the "removable section of the ECO cowl", position it over the top of the stainless steel flue pipe extension, and slide it down fully. This removable section does not require riveting and therefore enables easy removal for future flue cleaning.

## Installation Instructions with ECO Option Kit

Dependent on whether you are installing into a flat roof/ ceiling or sloping ceiling situation as detailed on page 2, will determine if you require all the components of the ECO Option Kit, if installing into a flat ceiling/roof you will not require the drop box or drop box edge covers.

*Note: The 300mm diameter outer liner extension (M) supplied with the ECO Option Kit is supplied at the maximum length it has been tested, and must not be extended.*

1. Slip the 300mm outer extension liner supplied with the ECO Option Kit over the 300mm outer liner "stub" attached to the mounting plate (H) supplied with the Base Kit. Permanently secure these two components together by drilling four evenly spaced holes around the circumference and rivet with stainless steel rivets.
2. At a point directly above the wood fires flue centre, cut a 300mm square hole through the ceiling and a 300mm diameter hole through the outer roof lining providing it is non combustible (iron, tiles etc) otherwise cut a 300mm square hole through the roof lining. "Trim out" the top face of the ceiling using timber nog's creating a square aperture measuring 300mm internally.

*Note: Certain flashing manufacturers detail specific size and shape of the aperture to be cut for their flashing, which must be adhered to.*
3. Fit mounting plate (H) into the ceiling by sliding the 300mm diameter casing attached to the mounting plate up into the ceiling until the two upturned edges rest against the under side of the ceiling. Square the mounting

plate to the wall and secure it in location with the four coach screws supplied, into the nogs just fitted. To further improve the rigidity of the installation, nail through the 300mm diameter casing at 4 points into the timber nogs.

- **If the ceiling is angled**, it is critical that the mounting plate is correctly positioned so the drop box in-fill panel can be fitted. Ensure the two "upturned folds" on the mounting plate are aligned parallel to the roof joists, i.e pointing towards the apex.

You will only be able to use two of the securing holes provided in the mounting plate. To give additional support to the installation nail through the 300mm diameter outer liner into the timber framing, access is through the 200mm hole in the base of the mounting plate.

4. Moving onto the roof with the 1200mm x 250mm diameter galvanised outer casing (F) with 750mm long slip section fitted, lower the slotted end of this casing (F) into the roof cavity until it locates inside the brackets on the top face of the mounting plate. Return back into the room and using the 2 x 6mm bolts and washers supplied, securely bolt the base of the 250mm diameter outer casing into the rivet nuts pre-fitted into the mounting plate brackets. Return back onto the roof and using a suitable flashing, weather proof the joint where the 250mm diameter outer casing penetrates the roof. Ensure the flashing used is compatible with the roofing material, and if fitting instructions are supplied with the flashing, these

must be adhered to. Prior to fitting the flashing, by fitting brackets securing the outer casing (F) to the roof material will further improve rigidity of the installation.

*Note: As there are two bolts, the outer casing can be rotated 180 degrees. Ensure the lock-form seam is rotated so the seam is sheltered as much as possible from the prevailing weather direction.*

5. Fit the external "intake" flashing cone supplied with the Option Kit as illustrated, and secure it to the top of the 300mm diameter extension liner through the 4 x brackets which protrude below the base of the external "intake" flashing cone.
6. While on the roof fit the 800mm x 200mm diameter galvanised inner casing (G).

*Note: This inner casing has a top and bottom, the bottom end has both internal and external brackets while the top end has external only. Fit the bottom end of this inner casing (G) down into the 250mm diameter outer casing (F) until the casings lower external brackets locate on the internal swadge of the outer casing.*
7. Moving back into the home, remove the plastic film from the ceiling plate (J) and place it black side down over the flue outlet of the wood fire. Using a high temperature black aerosol, spray around the hole in the centre of the white insulation gasket, and when dry lay this centrally on the ceiling plate.
8. Unwrap the two painted flue pipes (K) taking care not to mark the painted surface (use a metallic black Stovebright aerosol for touch ups) and proceed to assemble the three flue pipe sections as described below;
  - Smear an adequate amount of Pioneer fire cement inside the "top/un-crimped" end of both painted flue pipes (K).
  - Taking the unpainted stainless steel flue pipe (E) insert its top "un-crimped" end up through the mounting plate (H) and up into the casings until its bottom "crimped" end is 1250mm above the top of the wood fire.
  - Take one of the two painted stainless steel flue pipes (K) and fit its lower "crimped" end into the Metro wood fires flue outlet. Now lower the unpainted stainless steel flue (E) which is protruding down from the mounting plate so that it fully connects into the lower painted flue pipe (K). Ensure these two flue pipe sections are firmly connected and aligned, then secure with three stainless steel or monel rivets spaced equally around the joint.
  - Lift the two assembled flue pipe sections so the bottom of the lower section is 1250mm above the top of the wood fire, and repeat the above procedure to fit the remaining painted flue pipe (K).
  - With all three flue pipe sections securely joined, lift this three section assembly out of the wood fires flue outlet, then move it slightly off centre and lower the flue pipe assembly "on top" of the wood fires flue outlet. Smear an adequate amount of Pioneer fire cement inside the wood fires flue outlet (move the flue pipe assembly as required to ensure the entire flue outlet is coated in fire cement) then lower the flue pipe back into the wood fires flue outlet, with the vertical flue seam facing the rear.

9. Taking the ceiling plate (J) with insulation gasket (I) fitted which are laying on top of the wood fire, with the flue pipe passing through them. Carefully lift them up the flue pipe trying not to mark the painted flue, and clip the ceiling plate onto the mounting plate.

10. While still on the ground, assemble the ECO vertical discharge cowl as follows;
  - Take the stainless steel weather butterfly (A) so the angled sections are facing up and fold "up" both arms at the slot provided to just over 90 degrees as shown.
  - With both arms and angled sections of the stainless steel weather butterfly (A) facing up, fit it into the stainless steel cowl housing (B), and secure in position through the holes provided with stainless steel rivets.

*Note: Once fitted the weather butterfly will be slightly angled within the cowl housing.*

- Now fit the base of the cowl housing (B) over the brackets of the outer casing extension (C) ensuring the 3 x pre-punched holes punched in its lower skirt align centrally over the three brackets attached to the casing extension as illustrated. Push the cowl housing down fully until its internal swage rests on the casing extension brackets (the brackets should be "just but fully" inside the base of the cowl housing). Drill through the three pre-punched holes in the cowl housing through the three brackets and secure with stainless steel rivets.

11. Measure dimension "X" as shown on page 3 and transfer this measurement to the drop box in-fill panel as shown.
  - Cut the in-fill panel to the correct size and fit the 3 x edge covers.

*Note: The side edge covers will require trimming on the ends to suit the angle of the ceiling.*

- Secure the in-fill panel in position by fitting three rivets to each side through the holes provided.
12. Back in the room, lift the ceiling plate then attach the "ceiling plate mounted heat shield" to the lower face of the ceiling plate so that it acts as a deflector shield between the flue pipe and the lower side of the ceiling (refer assembled diagram on page 3). This heat shield has three tabs on its top face enabling it to be "clipped" into the 160mm diameter hole in the ceiling plate. Attach the ceiling plate by clipping it onto the mount plate and the installation is now complete.

### **WARNING!** Important Information

- If there is timber or combustibles within 25mm of the outer casing (F) in a zone "above the top end of the inner casing (G) and below the roof line" an additional 200mm inner casing must be fitted.

FAR NORTH DISTRICT COUNCIL

Approved Documents

## Installation Instructions ECO Insert Flue Kit

This flue system has been manufactured and complies with AS/NZS2918:2001. To ensure a safe and efficient installation, this flue system must be installed as detailed below by either a registered installer, or someone competent in installing solid fuel appliances.

1. Check the masonry chimney for structural soundness and make any repairs that are necessary.

*Note: Most councils require the masonry chimney to be inspected prior to installation. The masonry chimney cavity must also be swept prior to installation.*

2. Once the fireplace insert has been installed correctly as per the manufacturers instructions, look directly down the chimney to ensure the wood fire flue spigot is in line with the masonry chimney. (A torch will be required).
3. If you cannot see the flue spigot, a flue pipe offset will be required. If so, install the flue pipe offset so the top of it can be clearly seen from the top of the masonry chimney.
4. If an offset is required, an adjustable telescopic type is recommended. Measure the amount of offset required and adjust the telescopic offset to suit, after smearing an adequate amount of Pioneer fire cement onto the slip section of the offset to ensure a good seal, then rivet the offset in three locations around its circumference. (If the offset is used in its fully compressed form, it will be necessary to modify the end of the female slip section otherwise it will restrict the internal diameter) Apply a liberal amount of Pioneer fire cement into the flue outlet of the fireplace insert, and fit the lower crimped end of the offset into position inside the flue outlet, and bolt into position.

*Note: In some installations where it is not possible to fit offsets or rigid flue pipe due to the shape of the masonry chimney cavity, "Flexi flue" may be used.*

5. Secure the flue pipes together and ensure the flue seams are in line. Flue pipe joints must be fully compressed with a considerable amount of fire cement to ensure a good seal, and then riveted together at three even points around the flue join. Prior to installing the assembled flue pipe into the masonry chimney cavity, take careful note to ensure there are no overhead power lines in close proximity.
6. Lower the flue pipe into the masonry chimney, with the crimped end fitting into the fireplace insert flue outlet/offset, and securely attach with three rivets (offset/bend must be riveted to the flue pipe). For installations where extra lengths of flue pipe are required, or when the weather is poor, it will be easier to assemble the flue pipe lengths as they are lowered into the masonry chimney.

7. Secure the outer casing to the masonry chimney with suitable fasteners and weatherproof/seal to the masonry chimney top with mortar or silicone. Note: The top of the outer casing must be "level" (**+ or -10mm**) with the top of the 150mm stainless steel flue pipe. An optional masonry chimney flashing plate is available if required.

8. Assemble the ECO vertical discharge cowl as follows;

- Take the stainless steel weather butterfly (A) so the angled sections are facing up and fold "up" both arms at the slot provided to just over 90 degrees as shown.
- With both arms and angled sections of the stainless steel weather butterfly (A) facing up, fit it into the stainless steel cowl housing (B), and secure in position through the holes provided with stainless steel rivets.

*Note: Once fitted the weather butterfly will be slightly angled within the cowl housing.*

- Now fit the base of the cowl housing (B) over the brackets of the outer casing extension (C) ensuring the 3 x pre-punched holes punched in its lower skirt align centrally over the three brackets attached to the casing extension as illustrated. Push the cowl housing down fully until its internal swage rests on the casing extension brackets (the brackets should be "just but fully" inside the base of the cowl housing). Drill through the three pre-punched holes in the cowl housing through the three brackets and secure with stainless steel rivets.

The removable section of the ECO cowl is now fully assembled.

9. Making your way back onto the roof, fit the 480mm long flue pipe extension/flashing cone (D), with the flashing cone at the bottom, fit its short flue section inside the top of the already installed 150mm diameter flue pipe. Ensure the three brackets extended below the flashing cone fit "outside" the outer casing slip section. Drill through the pre-punched hole in all three brackets into the outer casing slip and secure with rivets.

10. Taking the "removable section of the ECO cowl" assembled in section (8) above, position it over the top of the stainless steel flue pipe extension, and slide it down fully. This removable section does not require riveting and therefore enables easy removal for future flue cleaning.

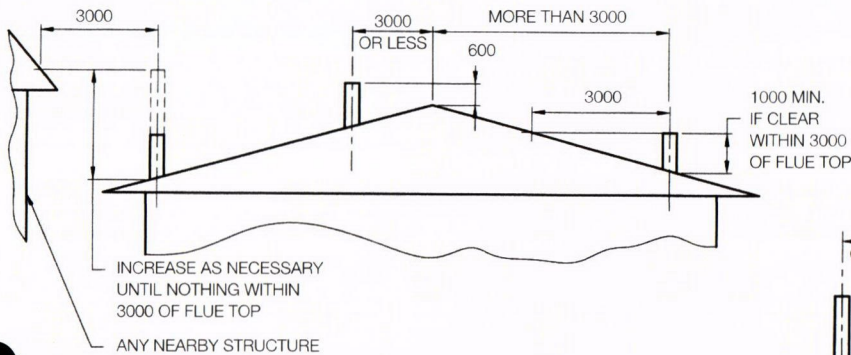
# Minimum Heights Metro Flue Systems (ALL) In compliance with AS/NZS2918:2001.

The Metro ECO Flue Systems comply with AS/NZS2918:2001 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

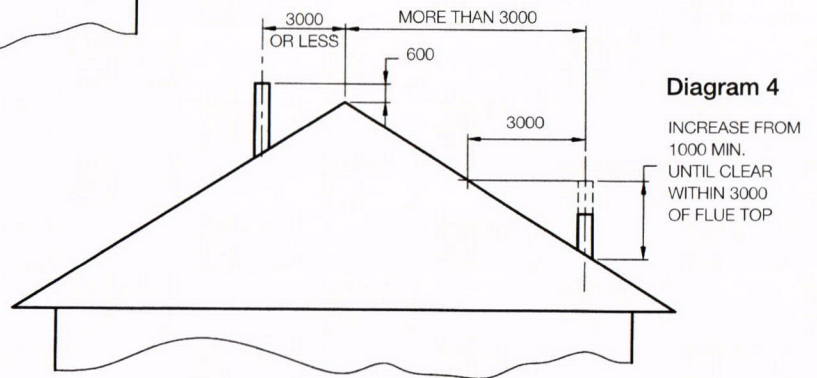
buildings will differ for every installation, some situations will require additional flue height to comply with the standard. Refer to Diagrams 3 and 4 below. (All measurements in mm)

*Note: AS/NZS2918:2001 Section 4, details flue system installation requirements in full.*

**Diagram 3**



**Diagram 4**



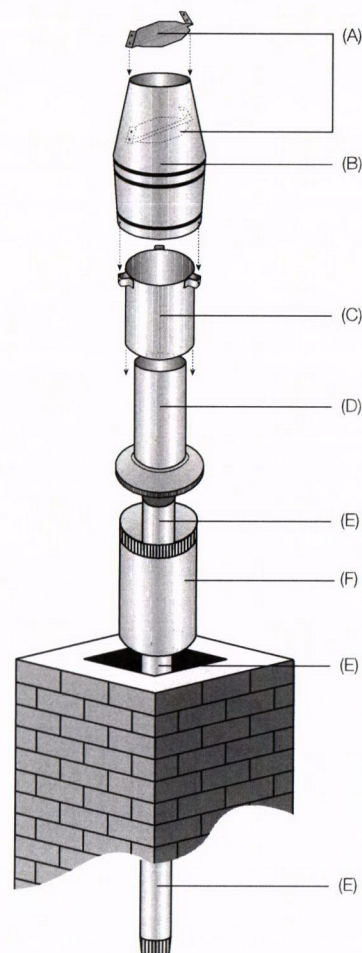
## Component Checklist ECO Insert Flue Kit

Please read these instructions fully prior to installation of the Insert Flue System and familiarise yourself with all the various components as illustrated right and listed below.

*Note: Rivets and fire cement are not included as they are supplied by the installer.*

### ECO INSERT FLUE KIT COMPONENTS

- (A) 1 x Stainless steel weather butterfly
- (B) 1 x Stainless steel ECO cowl housing
- (C) 1 x 225mm x 200mm diameter stainless steel outer casing extension
- (D) 1 x 480mm long stainless steel flue pipe extension with flashing cone
- (E) 3 x 1200mm x 150mm diameter stainless steel flue pipe
- (F) 1 x 600mm x 250mm diameter galvanised outer casing



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