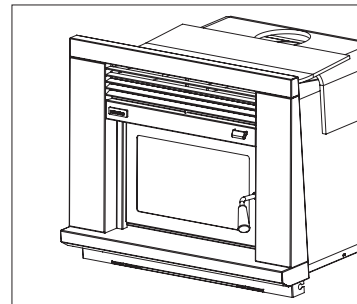
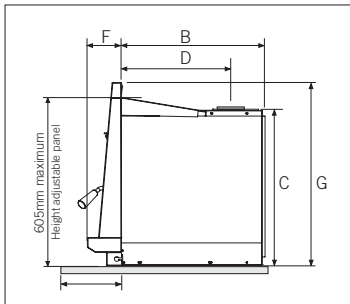


Wood Fire Installation & Owner's Operation Manual



metrofires

Ultra Insert Wood Fire

Important information.....	2	Getting to know your Metro.....	10
Pre-installation requirements.....	2	Replacement parts & accessories.....	11
Installing your Metro.....	3	Operating your Metro	11
Firebox parts and components	5	Cleaning and maintenance	13
Ultra Insert flue kit installation	6	Troubleshooting	14
Chimney vent requirements.....	8	Metro warranty.....	15
Floor protector requirements	9		

WARNING! Important Information

• **WE HIGHLY RECOMMEND YOU READ THIS ENTIRE MANUAL AS INCORRECT OPERATION, MISUSE AND/OR LACK OF MAINTENANCE WILL VOID THE WARRANTY**

- The appliance and flue-system shall be installed in accordance with AS/NZS2918 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/NZS4013 and will void the warranty
- The appliance must be installed correctly. We recommend a competent and suitably qualified NZHHA installer
- Electrically isolate fan before removing fascia

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 a Metro fire if there is any sign of visible damage to the product
- This appliance must be regularly maintained.
- Use authorised Metro replacement parts only. The use of unauthorised parts may void the warranty
- This manual **MUST** be left with the home owner
- A registered electrician is required to install the convection fan electrical connection and replace the fan motor and thermostat if necessary

Metro Insert fires are tested to comply with AS/NZS 2918 incorporating Appendix 'E' 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:

- This Ultra Insert **MUST** only be installed with the Metro Ultra Insert flue kit
- All flue joints must be sealed and riveted in three points with stainless steel or monel rivets; the bottom of the flue in particular **MUST** be fully sealed into the flue outlet of the Metro wood fire and secured with the bolt & nut as supplied in the component kit
- The 150mm flue pipe must be fully encased to the underneath of the flashing cone, from above the chimney breast. (there must not be any 150mm flue pipe exposed)

- A rear cavity vent is required. Please see detail in Diagram 1 opposite with full cavity vent requirements and installation detailed on page 8 of this manual
- In New Zealand, the Metro Ultra Insert must be bolted securely to the base of the chimney cavity to comply with the seismic restraint provisions of AS/NZS2918
- The Ultra Insert fascia is available in both vitreous enamel and metallic black high temperature paint finish. Take care during assembly and when lifting and fitting the fascia that you do not damage the vitreous enamel coating. Any surface damage to the paint finish Ultra fascia can be repaired with the use of Pioneer high temperature paint.
- **DO NOT** lift the Ultra Insert fascia with your fingers under the louvre's

Pre-installation - Firebox cavity

Your Ultra Insert is packaged in two heavy-duty cartons. The Insert firebox is in a palletised carton, while the fascia and door are packaged together in a separate clearly labelled carton.

Electrical

A 230v fan is assembled with the firebox and requires a registered electrician to wire into a 230/240VAC – 50/60Hz power supply.

The fan is controlled automatically by a thermostat, delivering low air volume very quietly, usually within 10-20 minutes of lighting the fire.

Pre installation - Firebox cavity

Prior to installing your Metro insert firebox into a fireplace cavity, it is important that specified clearances and other requirements are complied with as follows:

- The chimney must be swept and checked for cracks and general overall condition. If repairs are necessary, they must be carried out by a suitably qualified person

- Adjust cavity to minimum dimensions as illustrated in Diagram 1 on page 3. It is usually necessary to remove fire bricks from the lower fireplace cavity
- The base of the fireplace cavity on which the Metro Ultra Insert will rest must be level. If it is not, it should be levelled using mortar
- A rear minimum open vent area of 14,400mm² within a maximum height of 230mm must be cut through the chimney. Please see detail in Diagram 1 opposite with full cavity vent requirements and installation detailed on page 8 of this manual
- If a timber or combustible mantelshelf exists above the fireplace opening, it should be a minimum distance above the top of the Ultra Insert fascia. If less than the minimum specified, a deflector or heat shield will be required to be fitted under the mantelshelf or to the top of the fascia using the relevant detail as set out in AS/NZS 2918. Mantle clearances are detailed on page 9.

Installation of the Ultra Insert firebox

Ultra Insert firebox installation

1. Packaged loose within the firebox are 3 fire bricks, air slide lever and knob, Top Panel with insulated side Support Panels, top ceramic fibre blanket and bolt kit packed with this manual.
2. Position the firebox and cabinet into the prepared masonry cavity, ensuring cabinet is level and square. The front base of the cabinet should extend approximately 50mm forward of the masonry surround and have a minimum of 610mm height opening at the front to allow space for soft ceramic fibre blanket (not yet fitted).
3. Unscrew the ceramic fibre board from the Top Panel (packaged in front of the firebox) so the side insulated support panels can be riveted in place as illustrated. Leave the cellotape in place that holds the ceramic fibre then re-attach the ceramic fibre board again. Slide the top panel assembly in over the cabinet sides and under the rear blanket while ensuring the panel engages into the slot provided at the top of the cabinet. Temporarily screw the top panel in place as illustrated.
4. Place the four speed clips over the large diameter mounting holes in the return folds at the front of the cabinet (fascia mount points). Attach the fascia ensuring to lift it over the Top Panel as you position it prior to pressing it into place. Attach the 4x fascia mounting screws (8g x 19mm) while positioning the fascia evenly around the door. With the fascia firmly secure, push the fire and fascia fully into position.
5. If you are satisfied with the position of the cabinet and fascia, while confident flue access is acceptable or if any additional telescopic offset that may be required to connect the flue has been assessed. Then remove the fascia to secure suitable masonry anchors to comply with the seismic restraint provisions of AS/NZS2918.
6. Remove the upper Top Panel from the cabinet and following the flue system installation detailed on page 6, proceed and fit the flue with **All JOINTS SEALED** and riveted with a minimum of three stainless steel or monel rivets on each joint.
7. With Pioneer fire cement applied around the perimeter of 150mm flue, approximately 20mm below the flue swage, firmly force into the flue spigot. Using a 4mm drill bit, drill through the flue via the seismic restraint hole in the flue spigot and secure the flue with the 14g Tek screw supplied.
8. Before fitting the Top Panel, first place the Ceramic Blanket overlay provided (610 x 340) over both the Top Panel and rear cabinet insulation as the Top Panel is positioned, then fix in place with four 8g x 10mm screws.
9. Provisions for wiring the fan unit need to be undertaken by a registered electrician with relevant testing to gain electrical compliance while leaving the switch in the 'on position' once completed.
10. With electrical connected, fully open the door handle anti-clockwise, so the fascia can be refitted while ensuring the fascia is evenly positioned around the door frame. Secure the four mounting screws and check door operation and required seal to firebox.
11. Fitting of the bricks and other components is detailed on page 5.
12. Check the baffle plate is sitting on it's four support pins while pushed hard against the rear wall of the firebox, with the air tube locked in place below the baffle.
13. Fit the door to the firebox, and refit the fascia as detailed in Diagram 2 on page 4. The air slide is fitted once the fascia has been installed.

Once the Metro is fully installed it is best to wait 24 hours for the flue seal cement to dry. Alternatively, it is recommended you burn a couple of sheets of loosely crumpled newspaper at 30 minute intervals over a four-hour period before operating fire normally.

Diagram 1 - Firebox cavity

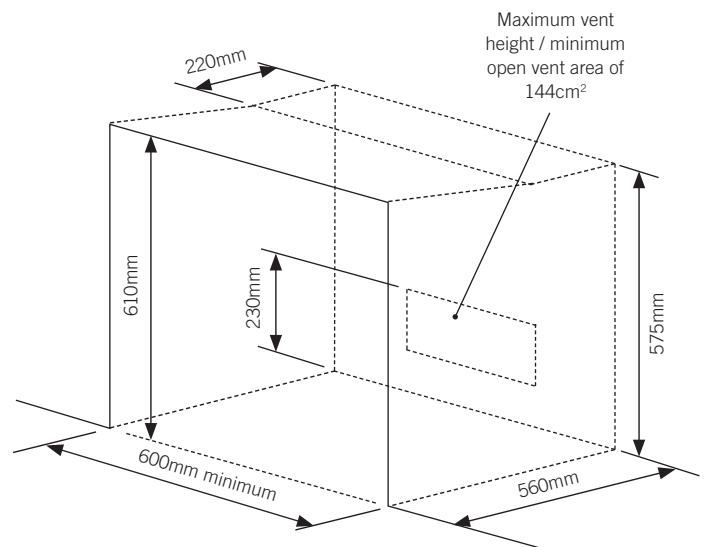
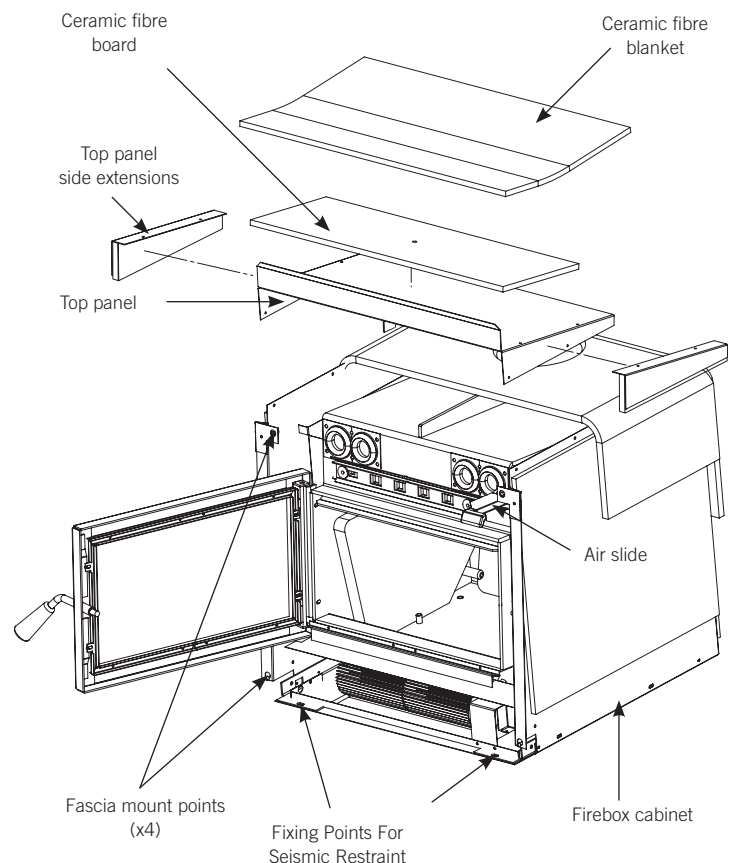


Diagram 1A - Ultra Insert Firebox



Installation of the Ultra Insert fascia

⚠ WARNING! Important Information

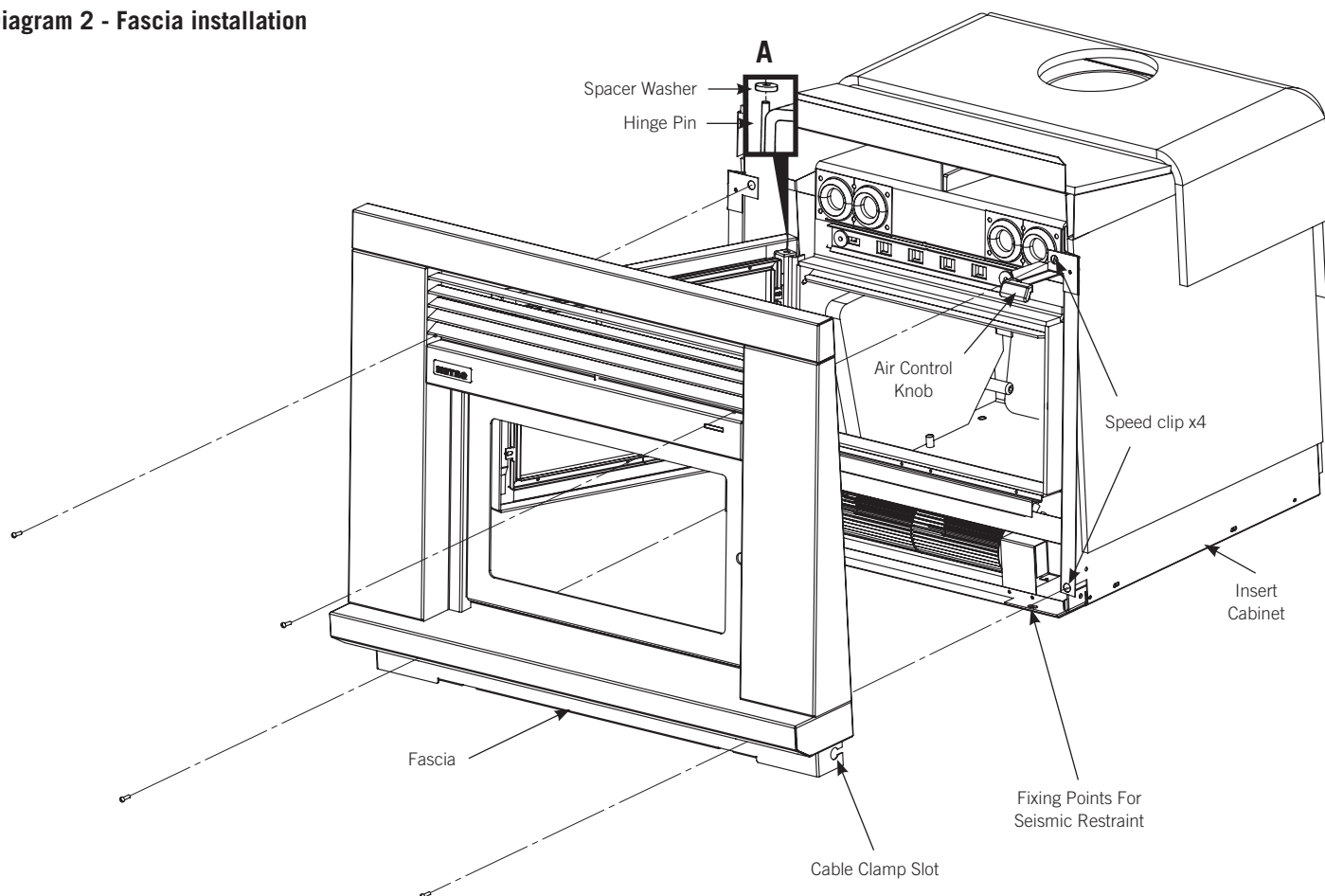
ALWAYS ELECTRICALLY ISOLATE THE FAN WHEN IT IS NECESSARY TO REMOVE THE FASCIA FROM THE FIRE

Take care not to lift the fascia by the louvres as they can bend.

1. If you haven't already fitted the door, do so now ensuring the spacer washer is placed on top of the hinge pin as indicated in Diagram 2 (Inset A).
2. At this time ensure the fan unit is positioned with the grommets over the location bolts at each end of the fan tray. Check the thermostat plug is attached with wiring and lead kept away from the firebox. Any excess lead must be shortened or positioned to the outside of heat shields or cabinet. Ensure the fan rotates freely.
3. Rotate the door handle fully anti-clockwise prior to fitting the fascia.

4. To fit the fascia, ensure the four speed clips are positioned over the large diameter mounting holes in the return folds of the cabinet (fascia mount points) when attaching the fascia ensure to lift and press the fascia Top Rail over the Top Panel of the cabinet. To allow the fascia to fully swing into place, slightly press down the tensioned heat shield above the fan so the fascia can fully contact the cabinet. Attach the 4x fascia mounting screws (8g x 19mm) while positioning the fascia evenly around the door.
5. The fascia should be evenly spaced around the door frame and sit evenly against the masonry surround when the firebox cabinet has been correctly positioned. (The door can still be removed from the fire with the fascia in place when it is correctly fitted).
6. Open the door and remove the two nuts and air slide guide washers to enable placement of the air slide. The air slide feeds 'lever end' first behind the fascia and through the lever slot. Fit the guide washers and nuts and ensure the slide moves freely with the lever resting gently on the fascia slot.
7. The air control knob can now be fitted.

Diagram 2 - Fascia installation



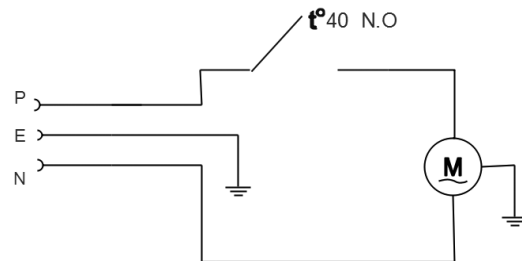
Firebox parts and components - Fan unit

WARNING! Important Information

- A registered electrician is required to replace the fan motor and thermostat if necessary
- Use authorised Metro replacement parts only. The use of unauthorised parts will void the warranty and compliance
- The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Ensure the power supply is electrically isolated if the fan or thermostat requires replacement. (ELECTRICIAN ONLY)

- The fan is a permanent fixture and can only be replaced by a suitably registered electrician.
- The fan must always be connected to a 230VAC power supply when the fire is used. The 15 watt fan will operate once the thermostat heats to 40°C. This can take between 10 - 20 minutes. If the thermostat requires replacement you will need to remove the fan to access.

To replace the fan / thermostat (Electrician only)



Firebox parts and components - Bricks, baffle and airtube

Side and rear firebricks placement or removal

- Raise the rear corner of the side brick so the brick can move back sufficiently to allow the front edge to swing in towards the centre of the firebox while moving the brick free of the rear support bracket
- The rear brick can be manoeuvred out from the support brackets at any time, or raised up if the baffle has been removed

Air Tube removal

- The Air Tube must be removed to allow removal of the baffle. The Air Tube retaining clip is easier accessed if the front of the baffle is raised by resting a spacer on top of the pin to see the tube slip ring and locking pin. Once the locking pin and slip ring is removed, the Air Tube slides to the right to release the left side allowing the tube to be fully removed. When refitting the airtube the left side has to index over the bolt head locator so the air jets face in a forward/down direction.

Upper baffle removal

The Air Tube must be removed to enable baffle removal. Before lifting out the baffle note the position of bolt heads and other obstructions that the baffle needs to clear on removal.

- Lift the rear of the baffle 20mm to clear rear support pins and slip forward 20mm while also supporting the front of the baffle so it does not drop down, then lower the rear of baffle vertically down while guiding the front of the baffle behind the front baffle pins. Tilt the vertical baffle forward and extract at 45 degrees while clearing hinge bolts and latch bolts.
- If replacing sacrificial 'Promet' boards on the baffle, finger tighten the bolts then using a spanner tighten nuts a further half turn. Over tightening will cause the linings to crack during expansion/contraction.

Check to ensure the top baffle is in its correct position in the top chamber of the firebox. It should be resting on four support lugs (two on each side of the firebox). The baffle must be hard back against the rear wall of the firebox.



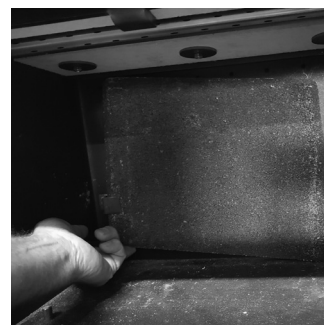
Side brick - Step 1

Raise the rear corner of the side brick so the brick can move back to provide clearance at the front of the brick.



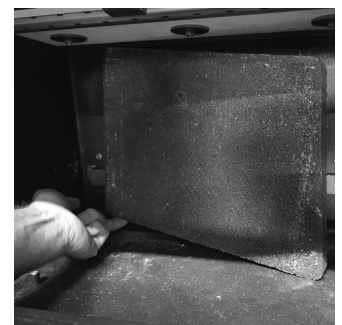
Side brick - Step 2

Swing the front edge of the brick into the centre of the firebox to get the brick free of the rear support bracket.



Rear brick - Step 1

Raise the square end of the rear brick so the brick can move back to provide clearance for the front edge.



Rear brick - Step 2

Swing the front edge of the brick into the firebox to get the brick free of the rear support bracket

⚠ WARNING! Important Information

THIS FLUE KIT HAS BEEN MANUFACTURED IN ACCORDANCE WITH AS/NZS 2918:2001.

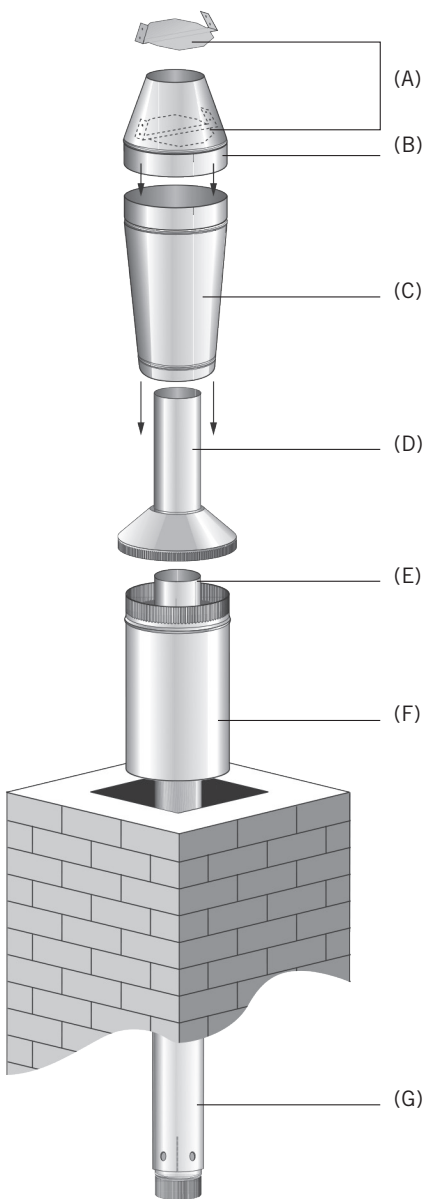
TO ENSURE SAFETY THIS FLUE KIT MUST BE INSTALLED AS OUTLINED IN THESE INSTRUCTIONS. THE APPLIANCE TO WHICH IT IS CONNECTED MUST BE INSTALLED IN ACCORDANCE WITH ITS MANUFACTURERS SPECIFICATIONS AND AS/NZS 2918:2001.

- These installation instructions are for the Metro Ultra Insert appliance only.

⚠ CAUTION! Important Information

- Mixing 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.
- It is the responsibility of the installer to ensure that the installation of this flue kit complies with AS/NZS 2918:2001, the appliance manufacturers specifications for flue pipe installation and that the relevant building codes are adhered to.
- Bends and extensions to the length of a flue system are permitted (AS/NZS 2918:2001 4.1)

Ultra Insert Flue Kit Installation Instructions & Component Checklist



Please read these instructions fully prior to installation of the Ultra Insert flue kit and familiarise yourself with all the various components illustrated left and listed below.

Note: Rivets, fire cement, chimney cap/flashing plate and masonry vent cover are not included as they are supplied by the installer/home owner. Pioneer manufacture a stainless steel masonry vent cover kit to complete installation.

Ultra Insert Flue Kit Components

- (A) 1 x Stainless steel weather butterfly
- (B) 1 x Stainless steel ECO Cowl top
- (C) 1 x 420mm x 240mm diameter stainless steel ECO Cowl housing
- (D) 1 x 480mm long stainless steel flue pipe extension with flashing cone
- (E) 2 x 1200mm x 150mm diameter stainless steel flue pipe
- (F) 1 x 600mm x 250mm diameter galvanised outer casing
- (G) 1 x 1300mm x 150mm diameter stainless steel flue pipe (pre-fitted liner)

The Ultra Insert flue kit features a custom 1300mm length of 150mm diameter flue pipe (G) with a pre-fitted stainless steel flue liner.

This section of lined flue must be fitted as close as possible to the Ultra Insert firebox. If possible connect directly to the Ultra Insert flue spigot, but if it is necessary to use a telescopic offset, then the section of lined flue must fit directly above this component.

This flue kit has been manufactured and complies with AS/NZS2918:2001. To ensure a safe and efficient installation, this flue kit 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 to the manufacturers instructions, look directly down the chimney to ensure the firebox 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.

Ultra Insert Flue Kit Installation Instructions

- 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.

- Secure the flue pipes together and ensure the flue seams are staggered. 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.
- 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.
- Secure the outer casing to the masonry chimney with suitable fasteners. A masonry chimney flashing plate will be required to weatherproof/seal the masonry chimney top. Note: The top of the outer casing must be 'level' (+ or -10mm) with the top of the 150mm stainless steel flue pipe.

- Assemble the ECO Cowl as follows;

- Take the stainless steel weather butterfly (A) so the angled sections are facing up.
- With both arms and angled sections of the stainless steel weather butterfly (A) facing up, fit it into the stainless steel ECO Cowl top (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.

- Fit the ECO Cowl top (B) into the ECO Cowl housing (C). Push both sections together until the swage ring on (B) rests completely on the open end of the cowl housing (C). Drill through the two pre-punched holes in the ECO Cowl housing and secure these two sections together with stainless steel rivets.

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

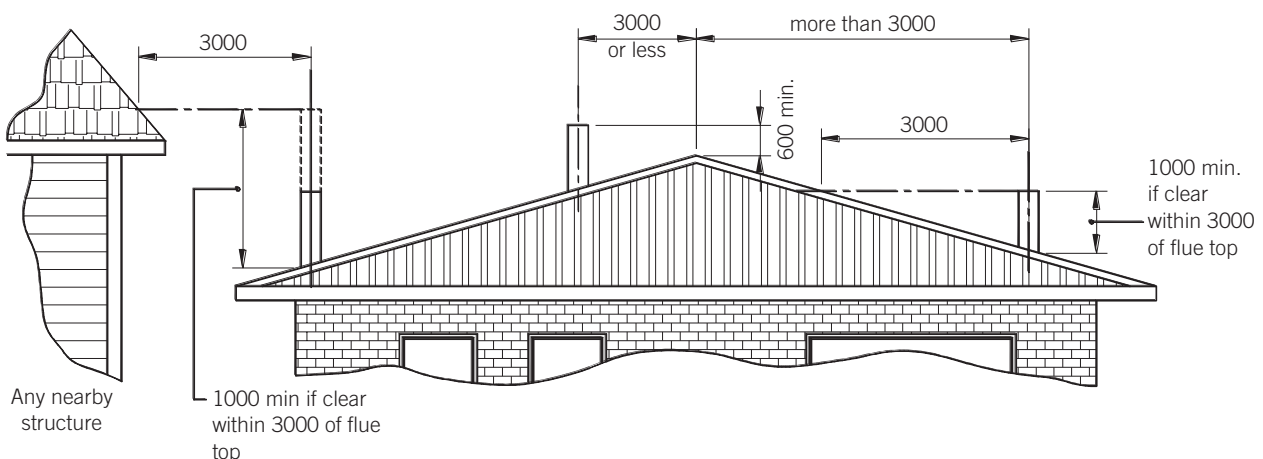
- Making your way back onto the roof, fit the 480mm long flue pipe extension/flashing cone (D), with the flashing cone at the bottom. Fit the short flue section inside the top of the already installed 150mm diameter flue pipe. Ensure the three brackets extended below the flashing cone fit 'outside' the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

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



Chimney vent requirements

⚠ CAUTION! Important Information

- An air vent is required on the rear face of the masonry cavity enclosure. The top of this vent must be no higher than 230mm above the floor and must have an overall minimum surface area of 14,400mm².
- Suitable precautions will be necessary to prevent rodents and debris from entering or restricting the air vent. If a gridded vent cover is used, please ensure the minimum vent area is maintained through the grille itself.

Note: Silicon, chimney vent cover and weather strip are not included as they are supplied by the installer. Pioneer manufacture a stainless steel masonry vent cover kit to complete installation. Details for the specific vent dimensions and Pioneer kit installation are detailed below.

Chimney cavity vent installation

Cut a hole as detailed no higher than 230mm above the base of the fire as illustrated in the diagram. The minimum open vent area of 14,400mm² with a maximum height of 230mm must be cut through the chimney.

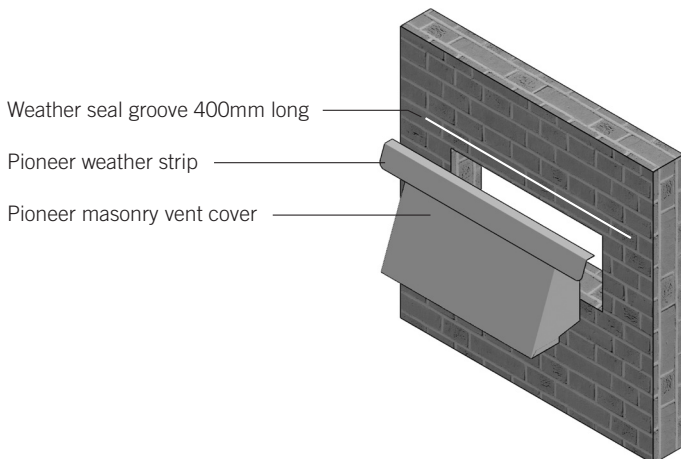
Suitable precautions will be necessary to prevent rodents and debris from entering or restricting the air vent. If a gridded vent cover is used, please ensure the minimum vent area is maintained through the grille itself.

It is the responsibility of the installer to ensure that the requirements of New Zealand Building Code Clause E2 (External Moisture) are complied with.

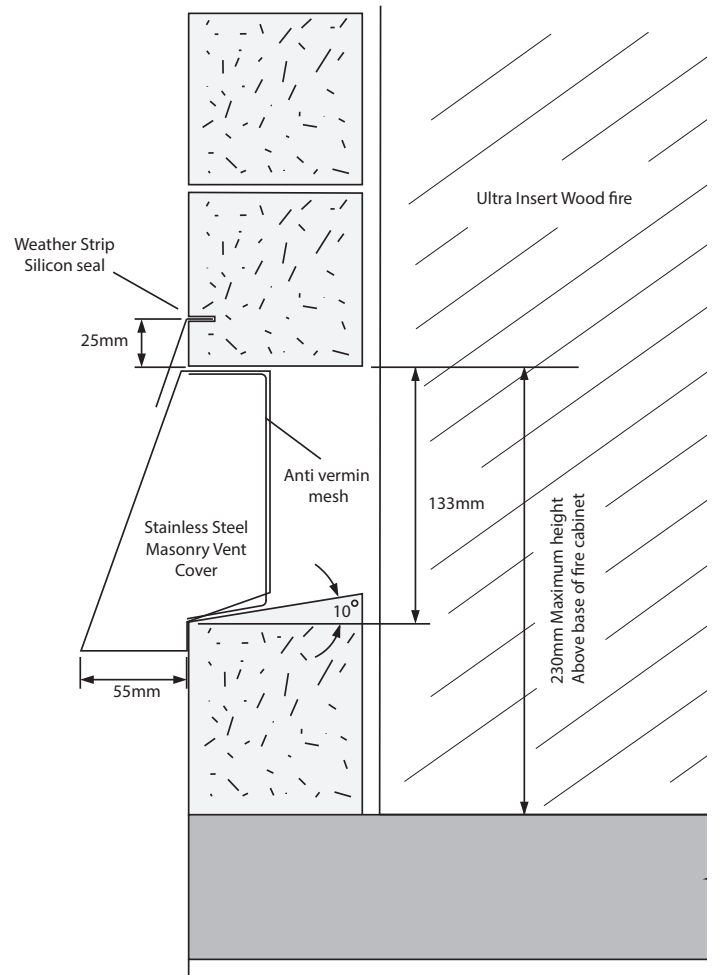
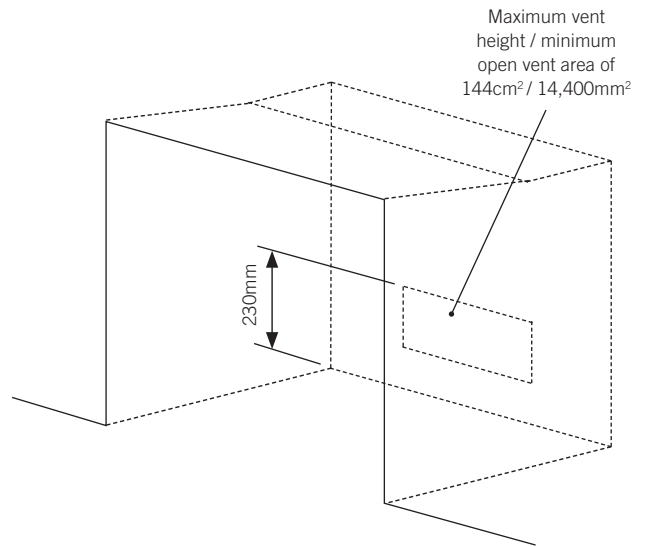
Pioneer masonry vent cover kit.

Installation instructions:

- Cut a hole through the masonry chimney 300mm wide x 133mm high. Please note that this is an external dimension and the base of the hole must slope up at least a 1/6 gradient as illustrated.
- Cut a weather seal groove 25mm above the vent hole at a minimum depth of 18mm x 400mm long (centred with the air vent)
- Place silicon around the top and side flanges of the vent cover and position into the hole and bead off around the perimeter
- Fill the weather seal groove with silicon and embed the weather strip fully into the silicon to ensure weather-tightness.



Chimney cavity venting requirements



Floor protector requirements

Floor protector requirements

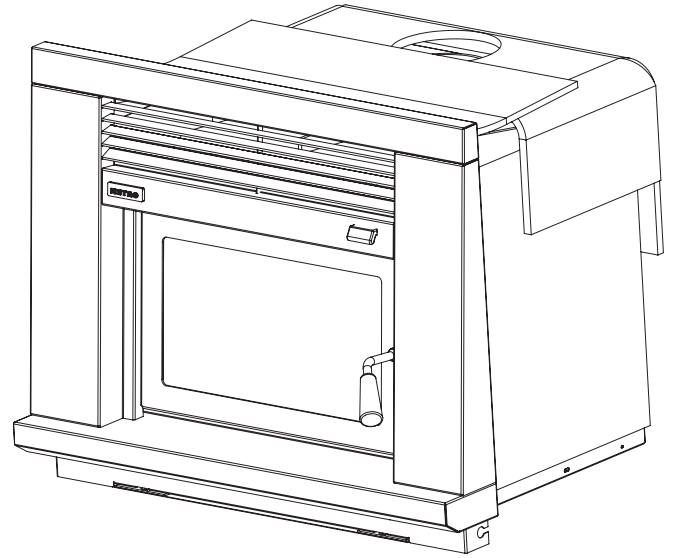
The Metro Ultra Insert is designed to be installed directly onto the insulated base of the masonry chimney and must only be installed with the Metro Ultra Insert flue kit in this situation.

The Ultra Insert requires an insulated floor protector which must extend a minimum of 200mm to each side of the door opening making the minimum floor protector width 825mm. The minimum insulated floor protector projection forward of the wall lining is 300mm as detailed in the table below. Minimum projection is the distance from the front of the wall lining (behind the fascia) to the front non combustible point of the floor protector. At the minimum 300mm projection, the insulated floor protector must be a minimum height of 50mm above any combustible floor covering. Please see the table below for floor protector heights and projections.

Mantel clearance

A timber or combustible mantel must not project more than 150mm from the finished wall lining and there must be a minimum distance of 500mm above the top of the Ultra Insert fascia to the underside of the mantel. If the clearance is less than the minimum specified, a heat shield will be required to be fitted under the mantelshelf in accordance with AS/NZS 2918:2001.

Mantle uprights/columns must be a minimum clearance of 180mm from the side of the fascia and project no more than 100mm from the wall lining.

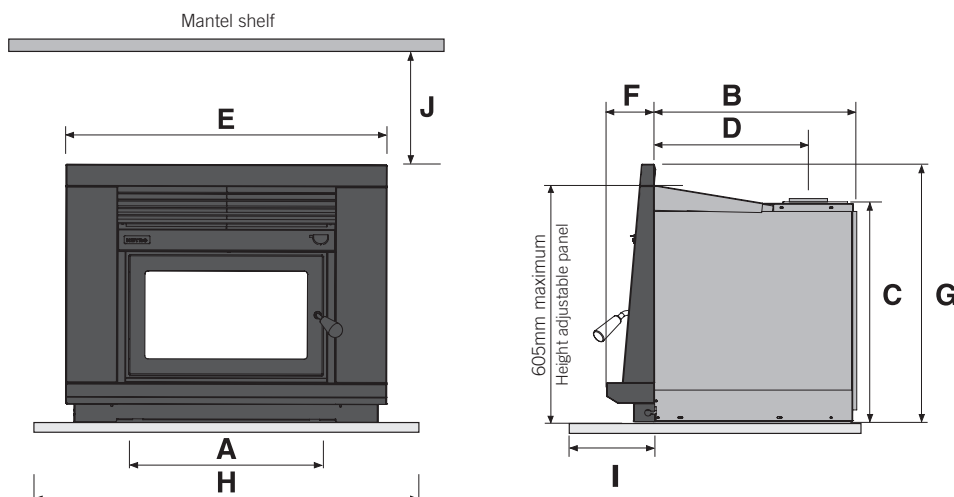


	Firebox Width	Firebox Depth	Firebox Height	Flue Centre	Fascia Width	Fascia Depth	Fascia Height	Minimum Floor Protector Width	Minimum Floor Protector Projection	Mantel clearance
Insert Dimensions (mm)	A	B	C	D	E	F	G	H	I	J
Ultra Insert	580	530	550	405	810	120	654	825	300	500

Please note: All measurements detailed above exclude the 13mm insulating blanket.

Minimum Floor Protector height above floor level	0mm	10mm	20mm	30mm	40mm	50mm+
Ultra Insert - Minimum projection (DIMENSION I)	402mm	378mm	360mm	339mm	320mm	300mm

Insulated floor protector recommended construction of tiles on 26mm thick Eterpan LD board or equivalent.



WARNING! Important Information

• **WE HIGHLY RECOMMEND YOU READ THIS ENTIRE MANUAL AS INCORRECT OPERATION, MISUSE AND/OR LACK OF MAINTENANCE WILL VOID THE WARRANTY**

- Any modification of the appliance that has not been approved in writing by the testing authority is considered as breaching AS/NZS4013 and CM1 and will void the warranty
- Do not use flammable liquids or aerosols in the vicinity of this appliance when it is operating
- Do not dry clothes on or near this appliance
- Do not use flammable liquids or aerosols to start or rekindle the fire OR store fuel within the Metro's specified installation clearances
- Never operate your Metro with the door ajar, except on initial start up
- Open the air control fully before opening the Metro's door.

CAUTION! Important Information

- This appliance should be maintained & operated at all times in accordance with this instruction manual
- This appliance should not be operated with cracked door glass, over worn, faulty or missing door seals
- Do not use driftwood, treated or unseasoned (wet) fuel, the use of most types of preservative treated wood as fuel can be hazardous and will damage your appliance
- Burning unseasoned (wet) fuel or incorrect operation on extended low burn cycles will cause excessive creosote to form. Creosote is very corrosive and excessive buildups will result in the flue pipe, flue spigot and upper burn chamber failing. Failure of the appliance and/or flue system due to creosote damage is not covered under warranty. The formation of such is not an appliance issue it is a fuel and operational issue
- This appliance must be regularly maintained and replacement parts must be authorised Metro parts only
- Do not empty ash into a combustible container.

Congratulations on the purchase of your Metro wood fire

This slow combustion appliance is designed to give you many years of warmth and service, subject to the following key factors. These key factors, if not adhered to are the major causes of unsafe installation, poor performance and flue blockages and potential product failure.

1. Your Metro wood fire must be installed correctly. Metro recommend a competent and suitably qualified NZHHA installer.
2. The only fuel to be used in this appliance shall be wood that meets the following criteria.
 - Less than 25% moisture content
 - Has not been treated with preservatives or impregnated with chemicals or glue,
 - Is not chipboard, particle board, or laminated board,
 - Is not painted, stained or oiled
 - Is not driftwood or other salt impregnated wood
3. The appliance shall be operated at all times in accordance with the "Installation and Operating Instructions" supplied with each appliance.
4. Your Ultra Insert must only be installed with a Metro Ultra Insert Flue kit.
5. Coal must not be used as a fuel.

Please also note the following important points:

- In New Zealand a building consent is required from your local building authority. The homeowner is responsible for obtaining this consent
- As correct installation is critical to the performance and safe operation of your Metro, it is recommended your Metro be installed by a NZHHA registered installer or a person suitably qualified in the installation of wood fires. Your Metro retailer will be able to arrange professional installation for you
- During the very first fire your Metro will give off an odour and fumes as the firebox paint cures. Do not be alarmed; open all windows and externally opening doors in that room and close any internally opening doors. This curing process will last for approximately one hour and is likely to happen this one time

- Properly seasoned (dry) timber is necessary for the Metro to operate efficiently; firewood that contains a high moisture content will result in flue pipe blockages, reduce heat output and create other issues.

Note: Once split, Softwood usually takes 12 months to season - Hardwood can take up to 24 months to season - Wood must be stored in a location that enables air circulation. Unseasoned wood stored in a closed woodshed without air circulation will still be unseasoned 12 months later.

- It is critical that the fire not be operated with over worn, faulty or missing door seals. Door seals will harden over time and become over-worn (3-4 year's) this will cause air to leak into the fire, causing the appliance to 'over fire'
- It is critical that the fire not be operated with over worn, faulty or missing bricks, baffle plate, promet extension (white board on the baffle plate)
- It is critical that the fire not be operated with cracked or broken door glass.
- It is critical that the fire is operated with the fan switched on.

Please note, the above 4 points require regular inspection/maintenance (every time the ash bed is cleaned out, generally 3-5 times a season) and if not maintained will void the firebox warranty. A glowing firebox or lower fluepipe is just one sign you are over firing your appliance. Please ensure you keep your proof of purchase/receipt on any parts you purchase.

- For optimum performance fuel must be loaded so the logs lay "front to rear" in preference to laying across the width of the firebox. Spaces should be left between the logs to enable oxygen to get to as much of the surface of the fuel as possible
- A small hot fire loaded frequently is more efficient than a large fire burning on a low setting
- Your Metro is covered by a full unconditional 12 month warranty on replacement parts, and a 5 year firebox warranty.

Parts guide for your Metro – Promet, baffles and wetback options

Your Metro wood fire must be regularly maintained and we recommend it is also serviced annually. If a wood fire is not regularly maintained and serviced, the life span will be reduced.

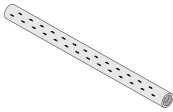
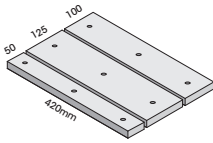
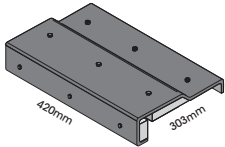
If your Metro wood fire has been neglected by not being regularly maintained and serviced, with authorised Metro parts replaced as required, or neglected through misuse, any warranty claim may be declined.

Listed below are the parts and product codes for your Metro wood fire. The promet/baffle should be regularly checked and must always be in place during the operation of your fire. The baffle should be resting on four support lugs (two on each side of the firebox). It must be hard back against the rear of the firebox with the 'promet lining' (white board) or return front steel edge of the baffle facing forward.

Hairline cracks in the promet lining are not uncommon and will have no adverse effect on the operation and performance of your Metro wood fire. These cracks are the result of intense heat coupled with expansion and contraction and is normal wear and tear.

If the promet lining starts to break up and pieces fall into the firebox it must be replaced.

Note: Impact damage when loading wood and burning wood which is not properly seasoned, i.e. 25% moisture content or more, will cause the promet to disintegrate and require replacement. Always burn dry well seasoned wood and take care when loading wood into the firebox.

Model	Type of promet required / Type of steel baffle(s) required
<ul style="list-style-type: none"> Ultra Insert <ul style="list-style-type: none"> Ultra Insert Gland Seal 500-1375 Ultra Insert Gland Seal (rope only) 500-0752 Metro Firebrick 500-1100 x1 Ultra Insert Firebrick 500-1118 x2 Ultra Insert Door Glass 500-0150 Ultra Insert Convection Tube 500-1506 	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Ultra Insert Air Tube 500-1505</p>  </div> <div style="text-align: center;"> <p>Ultra Insert Promet Set 500-2025</p>  </div> <div style="text-align: center;"> <p>Ultra Insert Baffle 500-2540</p>  </div> </div>

Operating your Metro wood fire

Operating your Metro fire is simple and you will quickly learn how to get the best from it. First take a minute to familiarise yourself with your new Metro.

- Raise the door handle anti-clockwise until the latch releases, and then slowly pull the door open. You will note that if you let the door go before it is at 90° to the appliance, it will fall closed. This is a safety feature that ensures the door cannot fall open if it is not latched securely. For the door to remain open, you must open it fully
- There is a single air control making your Metro fire easy to adjust. This control moves from left to right, which is 'low to high'.

The Metro Ultra Insert is the world's first conventional insert fire that meets the specification of ECAN's Ultra Low Emission standards and discharges incredibly low emission particulate even during the ignition light up phase.

If your Metro has only been installed within the last day, the fire cement seal at the base of the flue will not be fully cured. To ensure the cement sets without blistering it is recommended you burn 2-3 sheets of loosely crumpled newspaper at a time, at 30 minute intervals over a 4 hour period.

Fuel

Properly seasoned (dry) timber is necessary for the Metro to operate efficiently; firewood that contains a high moisture content will result in flue pipe blockages, reduce heat output and create other issues.

It is always recommended to burn well dried fuel that has good air flow to ensure the timber has dried right through to the core. Seasoned timber will only dry over one summer subject to it's size and if it is covered from rain but also allowing plentiful air to pass through the stack for drying.

The moisture content must be under 25%. It is best to allow a minimum of 12 months drying time for soft woods and at least double this for hard woods with good air flow required through the stack.

Note: Once split, Softwood usually takes 12 months to season - Hardwood can take up to 24 months to season - Wood must be stored in a location that enables air circulation. Unseasoned wood stored in a closed woodshed without air circulation will still be unseasoned 12 months later.

Burning properly seasoned (dry) fuel will result in;

- Less ash buildup
- Less emission into the environment
- Less creosote that can cause a host of issues
- Maintain a clean flue system
- Extend the life of the sacrificial components in your fire

Fan

The fan must always be switched on. The fan will start when the thermostat reaches 40°C in approximately 10-20 minutes from initial lighting delivering low air volume very quietly.

Operating your Metro wood fire - continued

The Metro Ultra Insert is the world's first conventional Insert wood fire that meets the specification of ECan's Ultra Low Emission standards and discharges incredibly low emission particulate even during the ignition light up phase.

You can greatly assist in minimising emission discharge by following the guide below on how to help reduce emission while also helping yourself with this ideal lighting technique. This 'upside-down method' is particularly time saving to light as two minutes after ignition the door can be fully closed while the fire generates a good ember bed without constant ongoing effort of loading fuel to establish the ember bed. The less time the fire door is opened, the quicker the fire heats and forms an ember bed of hot coals to enable the addition of further fuel. Fuel positioning is predominantly in a front to back orientation to promote air flow within the combustion chamber.

The specified emission results were achieved by following the described method below using dry fuel with less than 25% moisture content.

Cold start with air control fully open:

- Place 3 to 4 medium pieces of wood as shown (total weight 1.2kg)
- Cross stack kindling on top of the lower stack (kindling weight 1kg)
- Place fire lighters, one each side of the load near the top
- Light the fire lighters and partially close the door, resting the door spindle on the latch
- After 2 minutes with the kindling well alight, fully close the door.

Intermediate load with air control fully open:

- Approximately 40 minutes after lighting, once remaining fuel has formed hot coals that crumble on reload, place the intermediate load of firewood
- Place 3 to 4 pieces (approximately 1.2kg) across the ember bed as shown. Maintain gaps between each piece but if one layer is too condensed, cross stack a piece on top.

Main loads:

- Approximately 40 minutes after last loading, once remaining fuel has formed hot coals that crumble on reload place your normal sized firewood (Approximately 2kg). Once the fire is well established, regulate the air control to achieve the desired burn rate and heat output. As you move the air control to the right, firebox temperature and heat output will increase, if you move the control to the left they will decrease
- Always open the air control fully prior to opening the door, then open the door slowly. Every time you refuel, leave the air control on 'high' to re-establish the fire
- When loading logs, place them end-on, 'front to back'; air spaces should be left between the logs to enable oxygen to get to as much of the surface of the fuel as possible
- Never use the door to force wood into the firebox, as this is likely to break the glass.

Reloading:

When reloading, always ensure firewood is placed onto an established ember bed. If the ember bed is low, open the air control to maximum and load smaller timber pieces to re-establish the ember bed.



Start up load



Intermediate load



Main load

Cleaning and maintenance for your Metro wood fire

Your Metro fire will give you many years of efficient service with minimal maintenance if operated correctly using seasoned fuel. Your Metro fire must be regularly maintained and replacement parts must be authorised Metro fires parts only.

Metro Insert fascias

The front panelling of your Ultra Insert fascia will be coated with one of two coating systems, which can be cleaned with a soft cloth when the Metro is not operating. The two different coating systems used are:

- Vitreous enamel which is extremely durable and designed to last the life of the appliance. As vitreous enamel is glass, a solid or heavy object dropped or banged against a panel could chip the enamel surface.
- High temperature paint finish which will require periodic repainting to keep it looking its best. This coating is not as durable as vitreous enamel and is susceptible to scratching, so care is required. Fascias coated with high temperature paint can be easily resprayed using Pioneer metallic black paint.

Door glass

Providing your fuel is properly seasoned, under normal operating conditions the air-wash design of the Metro's firebox will keep the door glass clear. If the glass requires cleaning you may use either a razor blade scraper or crumpled wetted newspaper dipped in wood ash rubbed over the glass.

If your door glass breaks it must be replaced with 5mm thick ceramic glass which is available from your local Metro retailer.

Door seals

Over time, usually 3-4 years, the door and glass seals will become hard and cause air to leak into the firebox, causing the appliance to 'over fire'. Your Metro retailer stocks replacement woven fibreglass door and glass seals, which need replacing when they become hard and over worn.

The door of your Metro is easily removed. Hold it in both hands and lift the hinge end of the door up and over the top hinge pin, then lower the door from the bottom hinge pin.

Side bricks

Hair-line cracks are not uncommon and are a result of the intense heat within the firebox, coupled with mechanical damage caused by accidental impact when fuel is being loaded. However if the side bricks become cracked to the extent that they start to break up, they must be replaced.

Door adjustment

Provision is available on both sides of the door for adjustment.

To adjust the hinge end of the door, open the door fully, loosen the top hinge nut and slightly lift the latch end of the door; you will see the hinge assembly move back 1-2mm which will usually be sufficient. Retighten, then repeat by loosening the lower hinge nut, this time applying a slight downwards pressure onto the door to move the lower hinge assembly back a similar distance, then retighten.

The door latch is also adjustable, as the latch pin on the right side of the firebox is fitted through a slot which enables the latch pin to be loosened, moved back and re-tightened.

Ash removal

Over a period of time ash will build up in the base of the Metro's firebox and require removal. The time this build-up takes depends on the density and cleanliness of your fuel.

To remove the excess ash your Metro should not be operating.

- Open the door, and using a hearth shovel or similar, empty the excess ash directly into a steel or non-combustible container.
- If the ash is not disposed of immediately, be careful where you store it, as the ash can retain heat for many days and become a fire hazard.

You must leave a bed of ash in the base of the firebox approximately 10mm deep; this insulates the base of the firebox and improves combustion.

Top baffle

This is a 'sacrificial' wear part of the firebox and should be checked monthly. Usually only the promet (white board) front/underneath section needs to be replaced when it starts to disintegrate.

Note: Cracks in the promet are not uncommon and have no adverse effect on the operation of your Metro. These cracks are the result of intense heat coupled with expansion and contraction. Burning wood which is not properly seasoned, i.e. 25% moisture content or more, will cause the promet to disintegrate at a faster rate and require replacement sooner.

Airtube

This is a wear part of the firebox and should be checked monthly. Replace when worn out for optimum performance. Removal and replacement of the airtube is detailed on page 5.

Flue systems

Your Metro Ultra Insert has a special flue incorporating a lower liner which is required at the base of the flue.

The flue pipe should also be swept a minimum of once a year, or as required during the winter season. If smoke enters the room when you open the Metro's door this usually indicates the flue pipe is becoming restricted and needs cleaning. The frequency of flue pipe cleans depends on many factors, with the main variables being:

- The seasoning of the wood. If not properly seasoned you will require frequent flue pipe cleans.
- The density of the wood. Softwoods generally result in more deposits building up in the flue pipe.

To clean the flue pipe of your Metro, proceed as follows:-

- Remove the airtube and top baffle as detailed on page 5. Place these parts on a sheet of newspaper you have placed on the front of the floor protector. To prevent jamming, removal and replacement of the top baffle is best performed using both hands.
- Close the door and slide the air control to the left.
- Once on the roof, remove the cowl from the top of flue system and sweep the flue pipe using a 150mm-diameter flue pipe brush as detailed in the instructions provided with the fluebrush.
- Once the flue pipe is clear, clean and refit the cowl. Remove the excess soot which has fallen into the firebox, leaving a layer of ash 10mm deep on the base of the firebox, then refit the top baffle and airtube.

Note: The baffle must be fitted so its rear is touching the back of the firebox; if uncertain refer to page 5 in the Upper Baffle section in this manual.

Troubleshooting your Metro wood fire

If your Metro is installed correctly, your fuel is dry and you operate your fire correctly, you will find it to be a pleasure to use. Metro's many years of experience within the wood heating industry has shown that dissatisfaction is mainly due to:

- unseasoned fuel
- faulty installation
- operational error
- or a combination of the above 3 points.

Correct operation

Modern day wood fires need to be operated hard and fast, more so than low and lazy to ensure the firebox and flue pipe runs hot and efficiently. If the fire and flue pipe is up to temperature it will perform extremely well, the smoke will draw up the flue pipe with ease, and the fire will produce good amounts of heat.

If the fire is operated on low a lot of the time, the door glass will run black, the flue pipe will tend to block up more frequently and the fire will end up smoking into the room when reloading. It's better to have a small fire running hard and fast, rather than a big fire running low and lazy.

The following may be of assistance if you are experiencing any problems with the operation of your Metro Fire.

Smoke enters the room when the Metro's door is ajar

(possible reasons and solutions)

Check flue pipe joins

If the flue pipe joins are not sealed correctly, the flue pipe will not draw as well as it should. The flue pipe join connecting into the flue spigot on top of the Metro is most critical, if this is not sealed correctly, smoke will enter the room when the door is ajar. To check this join is sealed correctly, run a match or lighter flame around the join. If the flame is sucked into the spigot then it is not sealed correctly. This check needs to be done when the fire is not going. Ensure you check the rear of the flue pipe/spigot join, as due to the seam in the flue pipe, this is the most common area for not being sealed correctly.

Ensure the fuel you are using is correctly seasoned

If you are burning unseasoned fuel (wet), the fire will cause nothing but problems. The Metro won't deliver much heat, it will be lazy, smoke will enter the room when the door is ajar, and the door glass will run black. Unseasoned fuel is the main contributor to excessive creosote deposits which can be corrosive to your appliance and flue system.

Flue pipe length is too short

Add more flue pipe as the longer the flue system, the better the draw of the flue pipe. Please note, if you did not purchase the Metro ECO Flue System, you will not have the ECO Cowl which increases draw. We highly recommend the Metro ECO Cowl is fitted as this will increase the draw. If you already have an ECO Cowl and smoke is still entering the room, please add another 600mm length of flue pipe.

Downdraft/Turbulence blockage

If you have checked all of the previous factors and the fire is still smoking into the room, it's possible there may be a down draft issue. Down draft is environmental and can be caused by many variables, and it is purely trial and error to ascertain the cause.

Air turbulence and/or negative air pressure influences around the flue termination can be caused by too close or overhanging trees or natural/artificial ridges etc. Address these where possible or look to extend the flue above the roofline.

Other options may be:

- 'H' Cowl, designed purely for downdraft issues, but if you have an ECO Cowl fitted as standard, you will also need to add another 600mm of flue pipe to compensate as the H Cowl is shorter in length
- Directional Cowl, designed for high wind areas.

Air control setting

Ensure the air control setting is on high before opening the door to reload, as this increases the draw up the flue pipe. Open the door slowly.

If your Metro did not smoke, but its starting too and is getting worse:

The flue pipe is in need of a clean. It is recommended that the flue pipe be cleaned every season, however if you are burning the fire on low a lot, or are using unseasoned fuel, flue pipe cleans will be required more frequently.

Other issues you may experience

I can smell smoke in the room after a low burn cycle

The smell is creosote that will be seeping through the flue pipe join or out of the flue spigot onto an external surface, thus creating the smell in your room. The cause will be either unseasoned fuel, fuel mass too large, incorrect operation on low burn cycles or a combination. Creosote is very corrosive and excessive buildups will result in the flue pipe and potentially the flue spigot and upper burn chamber failing. The formation of excessive creosote is not an appliance issue, it is a fuel and operational issue. Failure of flue pipe or firebox due to creosote build up is not covered under warranty as excessive creosote build up is only possible from either unseasoned fuel or incorrect operation.

The Metro won't turn down as much as it did

The door itself may need readjusting, the hinge and latch is slotted and allows for movement. Loosening the hinge and moving it back a few mm will make the door seal tighter and stop air leaking into the fire. The door and glass seals may be in need of replacing, which is generally required every 3-4 years.

Familiarise yourself with the instructions on page 13 before proceeding with this maintenance.

Warranty details for your Metro wood fire

Metro wood fires are manufactured in New Zealand, using the highest quality of materials, workmanship and the latest manufacturing techniques, which is why we offer a full 5 year firebox warranty and a 1 year parts warranty on the Ultra Insert for your peace of mind.

Metro Warranty

(NZ Consumer laws apply to this warranty)

Pioneer Manufacturing Limited (Pioneer) warrants the steel firebox against defective materials and workmanship which would render it unfit for normal domestic use, from the date of purchase by the original consumer, for a period of 5 years.

Components including panel coating, door retainers, door seals, glass, trim, baffle, bricks, fan and thermostat are warranted for a period of 1 year from the date of original purchase for normal domestic use against defective materials and workmanship.

All associated accessories including, but not limited to, fans, flue systems, flue shields, wetbacks, tool sets, ash pots etc, are covered by a 1 year warranty against defective materials and workmanship.

It is recommended, but not a condition of this warranty, that a full service/inspection of the Metro fire be carried out at the end of each winter season.

Warranty Conditions

- The Metro fire must be installed, operated and maintained strictly in accordance with the building code and this installation and operation manual
- The Metro fire must be installed and used in a domestic application
- This warranty covers appliance like for like replacement or repair at the manufacturer's discretion but excludes freight, travel, installation, labour and/or any other associated costs
- Pioneer or their agents are not liable for any loss or expense direct or indirect arising from the failure of any part or operation of the appliance
- Operation of this appliance in violation of the warnings in this operation and installation manual will void this warranty
- Your Metro fire must be regularly maintained and we recommended it is also serviced annually. Proof of servicing may be required. If a wood fire is not regularly maintained and serviced, the life span will be reduced. If your Metro wood fire has been neglected, by not being regularly maintained and serviced, warranty may be declined

CAUTION! Important Information

Note: The following 3 points require regular inspection/maintenance (every time the ash bed is cleaned out, generally 3-5 times a season) and if not maintained will void the firebox warranty. Please ensure you keep your proof of purchase/receipt on any parts you buy.

- It is critical the fire not be operated with over worn, faulty or missing door seals. Door seals will harden over time and become over-worn (3-4 year's) and will cause air to leak into the fire, causing the appliance to 'over fire'. Do not operate the fire with cracked, or broken door glass
- It is critical the fire not be operated with over worn, faulty or missing bricks, baffle plate or baffle extension (white board on or under the baffle plate)
- A claim under this warranty should be directed to the retailer who supplied the Metro fire. If this is not possible write directly to the manufacturer stating details of fault, model, serial number of your Metro, dated proof of purchase and name of retailer purchased from.

Warranty Exclusions

(This manufacturer's warranty does not cover)

- Service calls which are not related to any defect in the product (i.e. operational, installation or fuel issues). The cost of a service call will be charged if the problem is not found to be a product fault
- Defects caused by factors other than normal domestic use or use in accordance with the product's operation manual
- Defects caused through the product being operated in an 'over-fired' manner resulting in sections of the firebox operating excessively hot to the point that sections glow red. (Note – This will result in distortion of the firebox)
- Defects to the product caused by accident, neglect, misuse or act of God
- The cost of repairs carried out by non-authorized repairers or the cost of correcting such unauthorised repairs
- Required maintenance as set out in this manual.

Service under this manufacturer's warranty must be provided by a repairer authorised by Pioneer Manufacturing Ltd. Such service shall be provided during normal business hours.

IMPORTANT! Complete and retain these details at time of purchase:

Purchase Date

Serial Number

Model

Colour

Retailer

Metro wood fire specifications

Metro have a Specifications Brochure available which details relevant compliance data for every model. This brochure is updated annually and details the minimum clearances and specifications for all models, which is generally required when applying for a building consent. See your Metro retailer to obtain a copy, or visit www.metrofires.co.nz

metrofires.co.nz

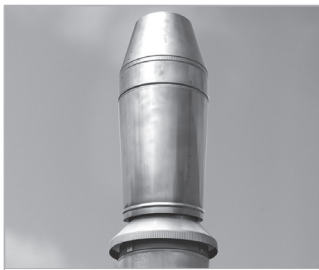
Visit the Metro website: metrofires.co.nz to view Metro's 'video demos' showing the latest in wood fire technology energy saving options. You can view the entire Metro product range, find out where your nearest Metro retailer is located or simply check out the latest specifications, installation requirements and emission and efficiency data for the Metro of your choice.



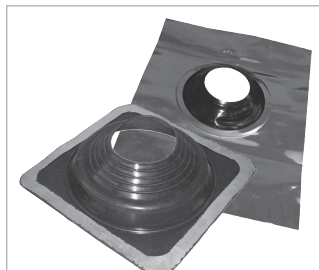
Pioneer heating accessories

Pioneer/Metro Fires offer a wide range of heating accessories designed to complement your Metro wood fire. The range includes ECO flue systems, floor protectors, wetbacks, heat transfer systems, baffles, bricks and more.

For further details talk to your Metro agency or visit www.metrofires.co.nz



ECO Flue Systems



Flashrites and Versatiles



Wetbacks



High Temperature Paint



Corner and Wall Floor Protectors



Heat Transfer Systems



Universal Door Seal Kits



Fire Cement And Silicone



Glass Tape



Door Seal Rope



Chubb Smoke Detectors