JAYLINE

your fire place

WALLTHERM AIR®
FREESTANDING WOOD FIRE

INSTALLATION & OPERATION INSTRUCTIONS

Please leave this information with the appliance

AUGUST 2018

PRODUCT REGISTRATION

TO ACTIVATE YOUR 5 YEAR GUARANTEE, PLEASE COMPLETE AND RETURN WITHIN 30 DAYS OF INSTALLATION TO:

RETAIL LINKS LTD
PO BOX 9056
ANNESBROOK, 7044
NELSON

NAME: _____

ADDRESS: _____

_____

_____

EMAIL: _____ PHONE: _____

MODEL: _____

SERIAL NUMBER: _____

DATE PURCHASED: _____

PURCHASED FROM: _____

DATE INSTALLED: _____

INSTALLED BY: _____

Congratulations on the purchase of your Walltherm Air® Ultra Low Emission Burner, by Jayline.

The Walltherm Air® Ultra Low Emission Burner is not a conventional wood fire, it is a 'wood gasification stove', developed for the optimal burning of air dried natural wood.

The principle of the wood gasification stove & double combustion and its advantages

Generally: In a wood burning stove, a correctly burning flame emits the same amount of carbon dioxide (CO^2) as would be emitted through the natural decomposition of the wood itself.

The quantity of CO^2 produced by combustion or decomposition of a tree is equal to the quantity of CO^2 that the tree would have extracted from the environment, releasing oxygen into the air whilst utilising the carbon for growth during its lifetime.

Unlike wood, when fossil fuels are burned (which are not renewable), like coal, diesel oil & gas, a huge amount of CO^2 accumulated in the course of millions of years is emitted into the atmosphere, increasing the green-house effect. Consequently, the use of wood as fuel maintains the perfect equilibrium of nature because it is a renewable fuel of which burning is comparable with nature's life cycle.

The principle of clean combustion is in perfect harmony with these characteristics.

Double combustion: What exactly do we mean by clean double combustion and how does it work? By controlling the flow of primary air and by adding secondary air, secondary combustion, or post-combustion, takes places. This is indicated by a second characteristically clearer and stronger flame below the main flame. By adding new oxygen, this flame consumes the unburned gasses, remarkably improving heat production and reducing the harmful emission of CO (carbon monoxide) caused by incomplete combustion. This is a unique feature of the Walltherm Air® stove.

Simply by burning your Walltherm Air® fire correctly, you can improve efficiency, reduce fuel consumption and minimise air pollution.

Please read this installation and operation manual carefully.

The installation of this fire must comply with the Installation Standard AS/NZS 2918:2001 as well as any additional local requirements. Please ensure you have all relevant permits prior to installation.

Keep this booklet as a reference guide.

Items supplied with the fire

- Installation / Owners Manual
- Cleaning Brushes
- Fire Hook
- Stainless Steel Shovel

Handling and transport

The fire is delivered complete with all the parts specified. Pay attention to the fire's tendency to shift on the pellet during transit.

Make sure the lifting capacity of the lift truck is more than the weight of the fire (300kg). Ensure there are enough people to handle this appliance when manoeuvring, both outside and inside the home.

Be very careful when moving the fire on the transport stand. Check the floor can withstand the weight (300kg) when moving and finally installing this unit.

INSTALLATION OF YOUR WALLTHERM AIR® ULTRA LOW EMISSION BURNER

Wallltherm Air® recommends you use a suitably qualified installation technician to install your fire. Your dealer or heating specialist will be able to help with recommendations as well as advise on permits/consents required for the installation in your area.

Please follow carefully all dimensions and recommendations provided on the individual specification sheet for your model of heater as these dimensions comply with the required New Zealand standard (AS/NZS 2918:2001).

As safety and emissions performance can be affected by altering the appliance, no modifications are allowed without the written permission from the manufacturer.

Installation

1. Unpack the heater and check that there is no damage.
2. Ascertain the position of the roof penetration for the flue system.

   A correctly installed flue system will normally prevent down draught problems during windy weather and eliminate smoke spillage problems due to lack of draught.
3. Ascertain suitable position for appliance and size of floor protector and check the ceiling to ensure that no major structural members will be affected by the path of the flue.
4. Check that the sub-structure is capable of carrying the heater (i.e. weight consideration on the floor at 300kg).
5. Check measurements of the heater to combustibles.

6. Locate the heater in the required position (also see 'Fitting Seismic Restraint' after installation instruction #10).
7. Using a plumb line fastened to the ceiling, mark the centre of the flue penetration position and cut the ceiling hole to the required size and frame out.
8. Install the flue system (see flue installation instructions supplied with flue system).

Remember:

- The flue system should rise vertically from the appliance with as few offsets as possible. Offsets should be limited as each change in direction creates a resistance to airflow and makes flue cleaning difficult.
- The flue system must be well sealed with a minimum of 3 fixings at each joint.
- The flue pipe penetrating the chimney must continue to the minimum length of 4.6m from the top of the floor protector to the cowl.
- The Ø200mm liner must be fitted from the ceiling plate and must extend all the way to the flue cowl. 2 x 1200mm lengths are supplied in the MKIII Flue Kit.
- Flue exiting more than 3 metres from the ridgeline must terminate no less than 1 metre above the roof penetration (see diagram 1 below).
- Where the top of the flue pipe is more than 2 metres above its highest fixing point, it must be stayed against high winds.

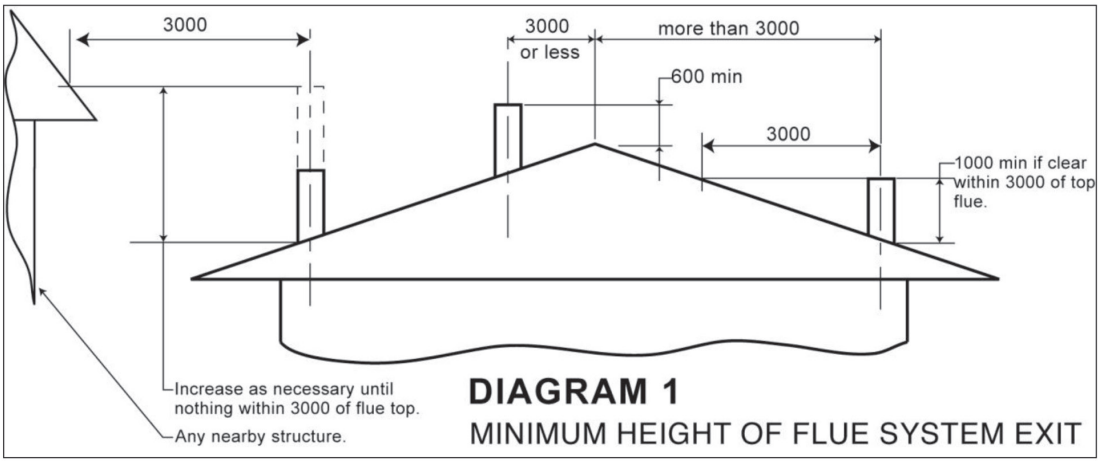


DIAGRAM 1
MINIMUM HEIGHT OF FLUE SYSTEM EXIT

9. Drill and fix flue system into flue spigot with stainless steel self-tapping screws.
10. Drill and secure the appliance to the floor protector using the two holes in the rear bracket of the appliance.

FITTING SEISMIC RESTRAINT

The Floor Protector must be mechanically fixed to the floor by bolting or screwing. *Note: Floor Protector to be fixed by gluing when on a concrete floor that may have water pipes or electrical wires present. The appliance can then be bolted to the floor protector with four 6mm x 50mm dynabolts or equivalent.*

REDUCING CLEARANCES TO COMBUSTIBLE WALLS

In the event it is necessary to reduce the clearances to combustible surfaces, it must always be done in accordance with the safety standard AS/NZS2918:2001 Section 3, Tables 3.1 and 3.2

The shielding shall be constructed from a heat resistant material. The shield must be fixed to the surface that requires protection and NOT the heater.

The standard allows three options to reduce the stated clearances:

Single Layer of continuous material with minimum Air Gap of 12mm to achieve a clearance factor of 0.40

Single layer of continuous material with minimum Air Gap of 25mm to achieve a clearance factor of 0.30

Two spaced Layers of continuous material with minimum Air Gap of 12mm + 12mm to achieve a clearance factor of 0.20

The shielding must be open at the top and bottom (vented) to allow a continuous air flow. It is this flow that keeps the surface requiring protection cool. Fixings should not impede this air flow.

The shielding needs to go far enough along and up the wall so that the original side and rear required clearances are not compromised. As the flue is now closer to the wall the shielding should also protect the wall from the flue pipe.

Example:

- Side wall clearance for the Jayline FR300 is 290mm
- A 12mm gapped shield on the wall with a factor of 0.40
- Calculate: 290mm x 0.40 = 116mm (This is the new sidewall minimum clearance)
- The shielding needs to be large enough that none of the original clearances of 290mm are compromised.

COMBUSTION AIR

There are 3 methods of obtaining combustion air for this product.

1. Drawing the combustion air from the room. Approved for all installations including Canterbury Method 1 (CM1). Adequate ventilation is required to prevent a negative pressure situation.
2. External combustion air through the wall (not approved for CM1 installations). This can be achieved by cutting the 2 x 100mm apertures in the rear of the fire and using heat proof hoses or pipes as shown in *Figs 1*. The external wall vent being used must be no smaller than 220mm x 110mm, be vermin and weather proof and be in such a position as to not allow it to become blocked or partially blocked (hose/pipe & vents not supplied).
3. External combustion air through the floor (not approved for CM1 installations). This can be achieved by cutting the bottom 180mm vent aperture in the fire as shown in *Figs 2*. This requires an air space below the floor of the home. A heat proof hose or pipe can be used. The intake end of the hose/pipe must be vermin & weather proof and be in such a position as to not allow it to become blocked or partially blocked (hose/pipe & vents not supplied).

Attention: Extractor hoods that are installed in the same room as the fire can cause problems.

Attention: If there are other fireplaces near the Wallltherm Air® fire, combustion air must be obtained from outside.

Combustion air taken from behind – *Figs 1* (External combustion air is not approved for CM1 installations)

FIG 1A. FRONT

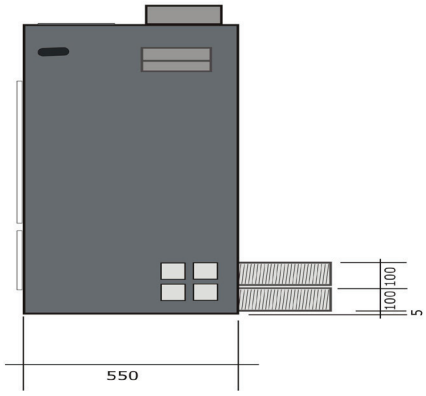


FIG 1B. LH SIDE

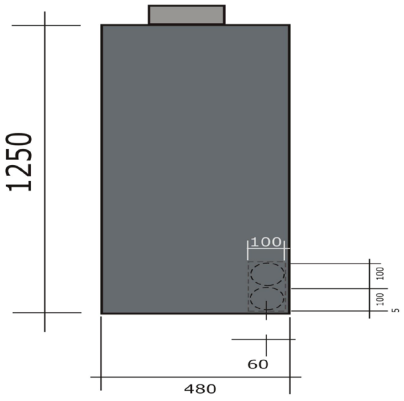


FIG 1C. REAR

Combustion air taken from below – *Figs 2* (External combustion air is not approved for CM1 installations)

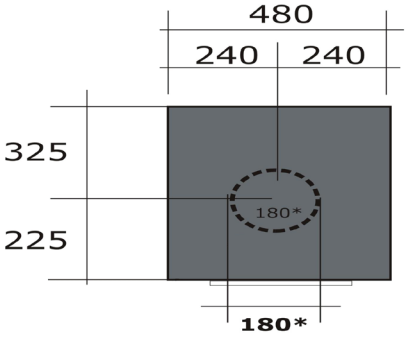


FIG 2A. BOTTOM

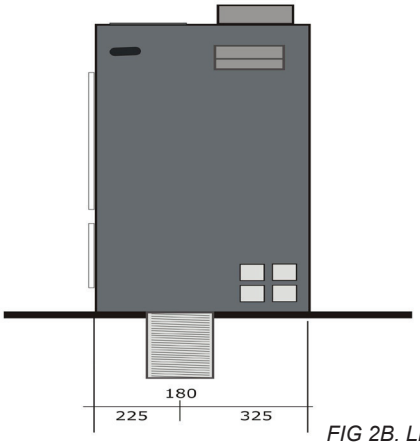


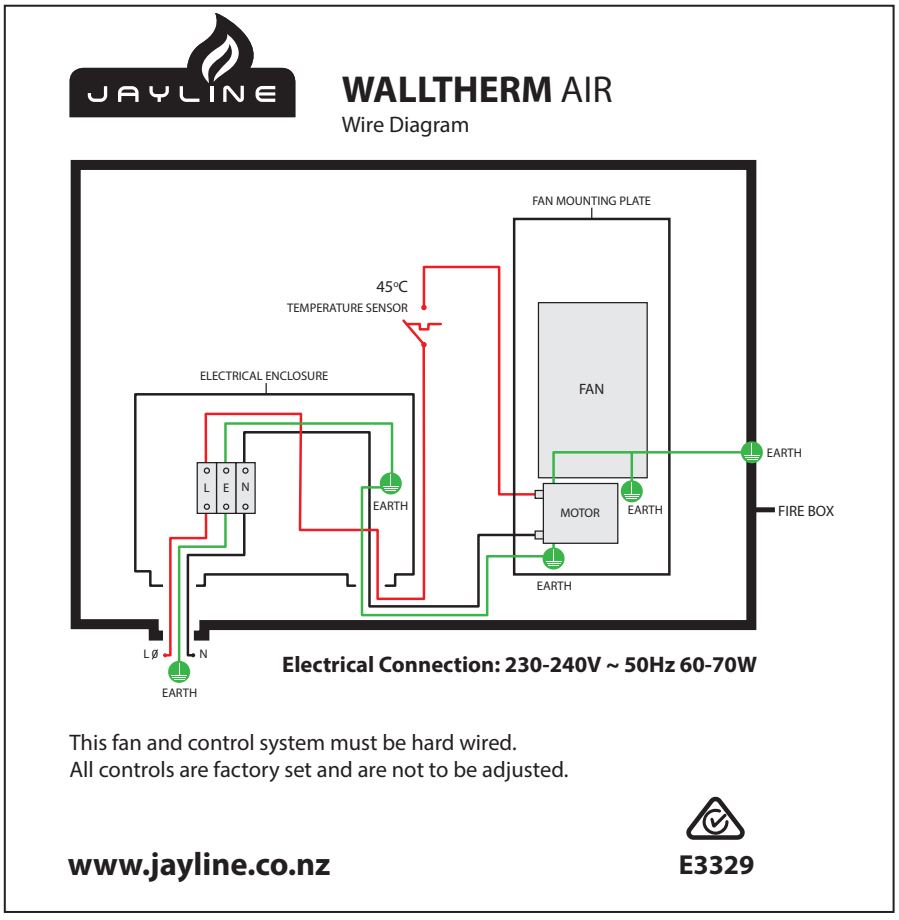
FIG 2B. LH SIDE

ELECTRICAL CONNECTION – *Fig 3*

The electrical connections and components for the convection fan are already installed; the electrician must ensure the electrical connection for the fan is permanently connected, earthed and fitted with an isolating switch. The electrical installation requires a (COC) Certificate of Compliance, obtained from the electrician.

Electricity supply 230V / 50Hz

FIG 3.



WARNINGS

1. **WARNING:** THE HEATER AND FLUE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH AS/NZS 2918:2001 AND THE APPROPRIATE REQUIREMENTS OF THE RELEVANT BUILDING CODE OR CODES.

2. **WARNING:** APPLIANCES INSTALLED IN ACCORDANCE WITH THIS STANDARD SHALL COMPLY WITH THE REQUIREMENTS OF AS/NZS 4013:2014 AND/OR CM1 WHERE REQUIRED BY THE REGULATORY AUTHORITY, I.E. THE APPLIANCE SHALL BE IDENTIFIABLE BY A COMPLIANCE PLATE WITH THE MARKING 'TESTED TO AS/NZS 4013:2014 AND/OR CM1. ANY MODIFICATION OF THE HEATER 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 4013:2014 AND/OR CM1.

3. PLEASE ENSURE THAT ONLY COMPONENTS APPROVED BY WALLTHERM AIR® ARE USED FOR THE INSTALLATION AS SUBSTITUTES MAY ADVERSELY AFFECT PERFORMANCE AND MIGHT NULLIFY COMPLIANCE WITH THE REQUIREMENTS OF AS/NZS 2918:2001.

   CAUTION: MIXING OF HEATER OR FLUE SYSTEM COMPONENTS FROM DIFFERENT SOURCES OR MODIFYING THE DIMENSIONAL SPECIFICATION OF COMPONENTS MAY RESULT IN HAZARDOUS CONDITIONS. WHERE SUCH ACTION IS CONSIDERED, THE MANUFACTURER SHOULD BE CONSULTED IN THE FIRST INSTANCE.

4. **CAUTION:** CRACKED AND BROKEN COMPONENTS, E.G. GLASS PANELS OR CERAMIC BRICKS MAY RENDER THE INSTALLATION UNSAFE.

ANY VARIATION FROM THESE INSTALLATION INSTRUCTIONS OR ANY DOUBTS ABOUT THEM MUST BE CHECKED AGAINST THE REQUIREMENTS OF THE AS/NZS 2918:2001.

5. **CAUTION:** THE ELECTRICAL CONNECTION FOR THE FAN MUST BE PERMANENTLY CONNECTED, EARTHED AND FITTED WITH AN ISOLATING SWITCH. THE ELECTRICAL INSTALLATION REQUIRES A (COC) CERTIFICATE OF COMPLIANCE, OBTAINED FROM THE ELECTRICIAN.

6. **CAUTION:** THE FAN SPEED AND TEMPERATURE ARE FACTORY SET AND CANNOT BE ADJUSTED. THE FAN MUST REMAIN SWITCHED ON DURING USE.

7. THE APPLIANCE IS NOT INTENDED FOR USE 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.

8. CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.

9. MEANS FOR DISCONNECTION MUST BE INCORPORATED IN THE FIXED WIRING IN ACCORDANCE WITH AS/NZS WIRING RULES.

10. IF THE CORD IS DAMAGED, IT MUST BE REPLACED BY THE MANUFACTURER, ITS SERVICE AGENT, OR SIMILARLY QUALIFIED PERSONS TO AVOID A HAZARD.

CORRECT OPERATION OF YOUR WALLTHERM AIR® WOOD FIRE

Simply by burning your Walltherm Air® fire correctly, you can improve efficiency, reduce fuel consumption and minimise air pollution.

Starting A New Fire

Please note: If lighting the fire for the first time, dust fire, glass, trim and flue before firing to avoid particles sticking or discolouring. Once fired, some smoke and vapour will be released as the VHT painted surfaces enter the final curing process. Open all windows and doors while running the fire for up to 5 hours. People with respiratory, heart or other relevant medical conditions should avoid inhaling vapours during the curing process. All VHT paint will cure at the highest temperature achieved and will produce smoke again if this temperature is exceeded.

To start and maintain a good fire you will need the following items:

1. A packet of matches or lighter
2. A packet of firelighters
3. A quantity of finely split, dry soft wood kindling about 300mm long and approximately 150g each (total approximately 1.5kg)
4. Seasoned firewood split into a range of starting sizes, from approximately 300g, 625g and main loads of approximately 1.3kg each. All wood must be loaded front to back, except for the kindling which must be layered on top of each other (not like a tepee).

Lighting Instructions – *Figs 4*

- Firstly, make sure the bypass valve is set to ‘start’ *(Fig 4A)*

SWITCH BYPASS VALVE TO ‘RUN’ POSITION WHEN FLUE GAUGE REACHES 350°C

FIG 4A.

- Turn the fan isolating switch on
- Check there is nothing obstructing the grate (clean) and the lower chamber is clean
- Close the lower door
- Load several small pieces of kindling over the grate (layered, not like a tepee)
- Place 2 fire lighters on the kindling
- Load the remaining kindling over the fire lighters (total approximately 1.5kg)
- Light the kindling and close the door
- Once fully alight, add 4 of the 300g pieces of wood
- Wait for the temperature to reach 350°C (flue gauge), then switch the bypass valve to the ‘run’ position *(Fig 4B)*.

SWITCH BYPASS VALVE TO ‘RUN’ POSITION WHEN FLUE GAUGE REACHES 350°C

FIG 4B.

Please note: If the lower chamber flame is ‘pulsing’ or ‘puffing’ when changing the fire mode, this will sort itself out, however it is quicker to switch the bypass valve to Start for another 3-4 minutes and then back to Run again.

- This will enable the down draught mode to activate giving you an Ultra Clean and very efficient wood fire. Wait for the flue temperature to reach 350°C to ensure the flue system and the thermal mass of the heater is at the correct temperature to sustain the down draught burning operation. The fire must be left in this mode for the remainder of burn period (excluding re-fuelling only).

- Once the above wood is fully alight, add 4 of the 625g pieces of wood *(Fig 4C.)*, by firstly switching the bypass valve to Start *(Fig 4A)*, slowly opening the door, adding the wood front to back, as shown in *(Fig 4C)* closing the door and switching the bypass valve to Run *(Fig 4B)*.

Full load indicator line (brick join) as labelled on rear top bricks

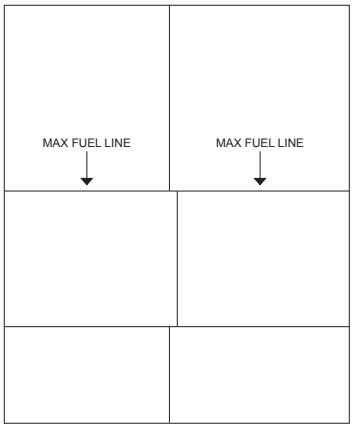


FIG 4C.

- From this point on, when required, use the main load of 3 pieces of 1.3kg wood and the same for future reloading. Keep the full loads below the line on the side & rear bricks (full load indicator) to ensure a clean & efficient burn process. When reloading, place the new pieces toward the centre of the fire box.

Important points to remember

Switch the bypass valve to Start (4a) before opening the door when refuelling, as this will prevent smoke entering the room.

Do not attempt to add fuel (or any objects) into the lower chamber.

Keep the lower door closed at all times.

Make sure the fan is always switched on.

As this appliance has a large 300kg mass of steel and ceramics, there will be some noise during the heating and cooling off process. This is normal.

The ceramics (fire bricks) used in this product are very thick and due to the extreme temperatures involved in the burning process, cracks may appear in the surface. This is not a fault or problem and should be ignored unless the ceramics fall apart.

Cooking plate and doors: Because of the high temperatures achieved, the colour of the doors and cooking plate will change.

PURCHASING THE FIREWOOD

The quality of the firewood you burn can have a dramatic effect on the efficiency and operation of the heater. The main factors that affect the burning characteristics of firewood are moisture content, tree species and piece size.

The moisture content of the wood affects the rate at which it burns and the efficiency of combustion. When trees are cut, the wood moisture content ranges between 35% and 60% by weight. If you attempt to burn wood this wet it will be hard to ignite, slow to burn and will hiss and sizzle in the firebox. So much energy will be consumed in boiling off the excess water that the efficiency of combustion and the heat to your home will be low, condensation and corrosion may be occurring in the flue and smoke may be causing problems to your neighbours. Properly seasoned wood ignites readily and burns efficiently.

PLEASE NOTE: WOOD WITH A MOISTURE CONTENT OF 25% OR LESS IS THE ONLY APPROVED WOOD TO USE IN CLEAN AIR ZONES

Firewood should be cut and split in the early spring and stacked under cover, with good ventilation, to be ready for burning when required.

Look for cracks in the end grain as a sign of dry wood. Stacks of firewood should be in an open area so that air can circulate through them. During the summer, as warm breezes flow through the stacks, carrying away the evaporating water, the moisture content of the wood will fall to around 20%. At this moisture content the wood is ready for burning. This can be changed with the moisture meter supplied.

Although the energy content of dry wood per kilogram is almost the same regardless of species, some burn differently because of differences in density e.g pine is less dense than woods like Gum, Manuka or Black Wattle. A denser wood will produce a longer-lasting burn, while a less dense wood will bring a fire to an optimum burning temperature more quickly.

In general, commercial firewood dealers supply firewood in thicker pieces than modern wood-burning heaters can handle. It is often necessary to split some of the wood again before using it. The thickest piece size for high-efficiency and use in the Wallltherm Air® fire should not exceed about 150mm (6 in.) across the largest dimension, or weigh no more than approximately 1.3kg. A range of smaller pieces will be needed for effective starting as described in the lighting instructions. Maximum log length should be no more than 300mm.

BURNING COAL, TREATED TIMBER, DRIFTWOOD, PLASTICS OR WASTE PRODUCTS

Due to the design and use of this product, the burning of coal, treated timber, driftwood, plastics or waste products is forbidden and will void the warranty.

WALLTHERM AIR® WOOD FIRE CLEANING

The fire requires frequent and thorough cleaning as well as periodical inspection to guarantee it will work properly and ensure constant heat efficiency. When cold use a vacuum cleaner to remove all the ash that has collected in the fire.

Safety precautions

The following precautions must be taken prior to embarking on any cleaning:

a) Make sure all parts of the fire are cold.

b) Make sure the ashes are completely cold and not burning.

c) Always use the most appropriate tools and items supplied.

Daily cleaning – *Figs 5*

Insert the shovel into the lower combustion chamber and use the small brush to sweep all of the ash off the grids in the upper combustion chamber. Sweep the ash to the openings of the injector block where it can fall into the shovel. Remove the shovel with the ash and empty it.

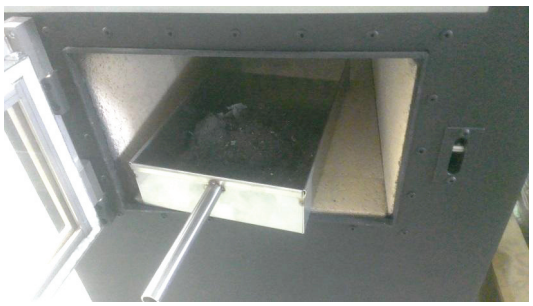


FIG 5A.

FIG 5B.

Periodical cleaning – *Figs 6*

There are two little ash boxes under the two stair grids. Lightly lift the grids on the side of the jets and clean them. This is very easy when using a vacuum cleaner. This should be done every 2 weeks.

FIG 6A.

FIG 6B.

To prevent the glass from the upper combustion chamber becoming black, you need to clean the air inlet which is behind the upper door (stainless steel grill, see pictures below)

FIG 6C.

FIG 6D.

FIG 6E.

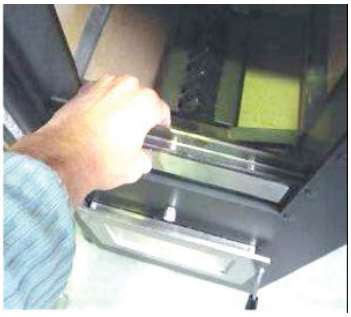


FIG 6F.

Also clean the gap in between the door and the refractory stones in the lower combustion chamber with any flat object. If this gap is not cleaned properly there will be no airflow coming down through it from above and the glass of the lower door will not be cooled.

FIG 6G.

The grid in the lower combustion chamber and the injector block need to be cleaned. To remove the grid, you need to lift the injector block out first. Once done, carefully remove the grid. Clean and vacuum the chamber and parts, then reinstall all items.

FIG 6H.

GRID

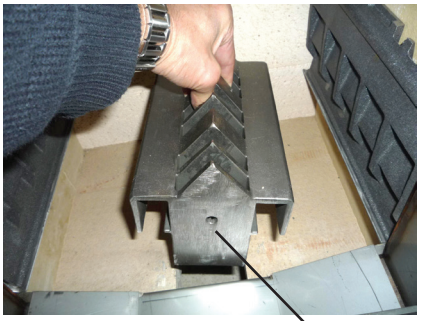


FIG 6I.

INJECTOR BLOCK

Hole needs to point to the door

FIG 6J.

GRID

Monthly cleaning – *Fig 7*

The heat exchanger tubes should be cleaned every 6 – 8 weeks. For cleaning the tubes, please use the two brushes supplied with the fire.

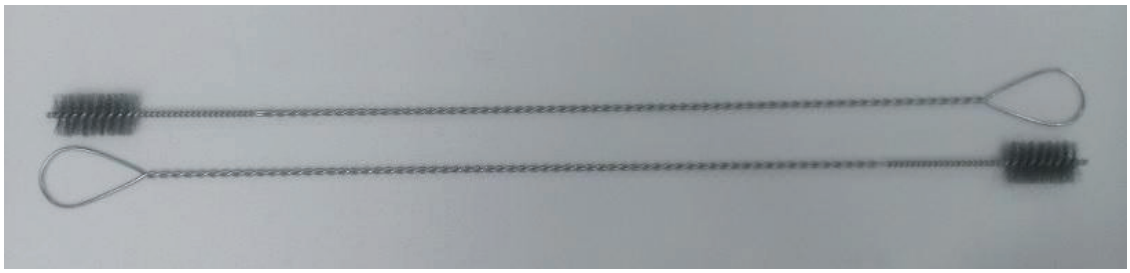


FIG 7.

Cleaning the heat exchanger tubes – *Figs 8*

To clean the tubes, remove the top cover behind the flue spigot, then you can see the heat exchanger tubes.

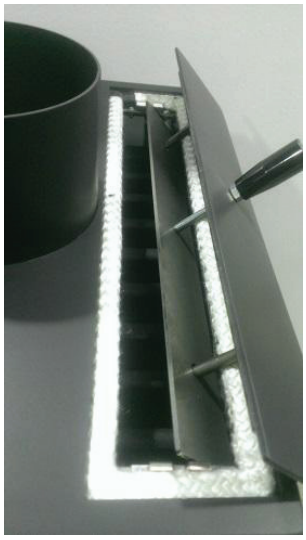


FIG 8A.

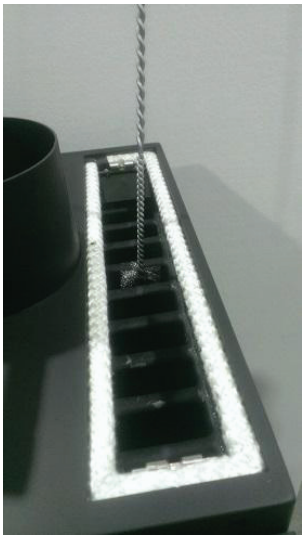


FIG 8B.

Clean all tubes with the long brushes!

FIG 8C.

Important: Every brush must hit the bottom of the lower combustion chamber to make sure every tube is completely cleaned! Repeat until the tubes are free of ash remnants.

After cleaning the lower combustion chamber carefully set the grid back into the correct position.

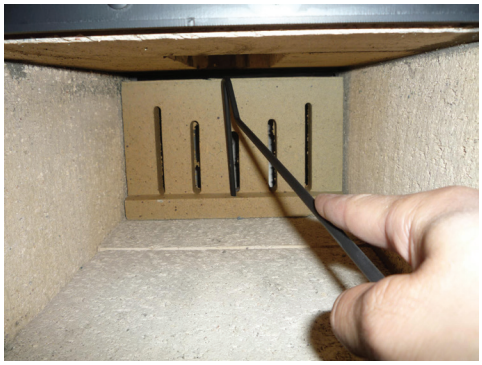


FIG 8D.

Please make sure the injector block is clean, otherwise it could influence the draught! Insert the injector block with the hole on the front side pointing towards the front door.

Cleaning the glass

Clean the glass with a damp cloth, newsprint, or damp paper rubbed in ashes. You can also use ordinary oven cleaners. Do not clean the glass while the fire is working and do not use abrasive sponges or abrasive chemicals.

Clean all other external parts with water and soap only. Never use alcohol or aggressive cleaning liquids.

CHIMNEY CLEANING AND CHECKING FLUES

For all wood fires, flue cleaning must be done regularly to avoid serious flue fires. Frequently used fires should be cleaned at least once a year (some sooner). The cleaning rate, however, depends on the burning habits of the individual operating the wood fire and the fuel used.

It is recommended that flue sweeping be done by a professional chimney sweep. Chimney sweeping is a specialist task and competent professional sweeps are available throughout the country. When the flue is cleaned it is recommended that other parts, such as baffles and ceramic insulation materials are checked. Flue systems should be checked at least once or twice a heating season and may require checking more often if the fuel or operation of the appliance is incorrect. When a flue system becomes excessively blocked or requires frequent cleaning, advice should be sought to investigate the installation and the operation of the fire. Flue pipes can deteriorate very quickly with incorrect firing.

CONSUMABLES

Some parts of your Walltherm Air® fire are considered consumable. They are designed to be replaced as they will degrade over time. The life of the consumables will vary depending on;

- How often the fire is used
- Type of fuel. Some woods are much harsher than others

General items that are considered consumables:

- Baffles
- Fire ceramics
- Glass and door ropes

It is very important that you replace these parts when they show signs of wear. They effect how the fire runs and you may increase your fuel consumption or lower your efficiency if not replaced and can in some cases, damage the firebox. It is generally obvious once a part is in need of replacement. Steel components may split or large holes may appear, fire bricks may crack and disintegrate. We recommend you check your fire visually several times a year for damaged components.

Recognising errors and taking measures against faults

ERROR	POSSIBLE CAUSE	MEASURE
Very high exhaust temperature >200° C	Exhaust valve 5 in Start position	Switch valve 5 to Run
Smell/stench in the room	Leaking seals	Check the sealing of the doors 1 and 3a, the cooking plate 9 and the opening with lid 4b and replace seals if necessary
Smell/stench in the room	Too low/poor draught	Check the flue system is not blocked and is clean. Have the fire maintenance & cleaning procedures been done?
The flame in the upper combustion chamber continously goes out	Too low/poor draught	Check the flue system is not blocked and is clean. Have the fire maintenance & cleaning procedures been done?
	Exhaust valve 5 switched to Run too soon	Switch exhaust valve 5 to Start until the flue temperature is at least 350^0 then switch to Run

WALLTHERM AIR® – *Figs 9*

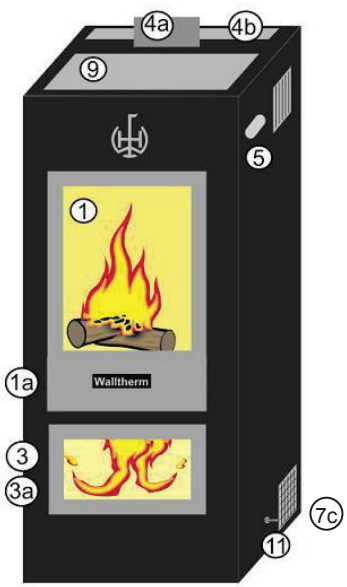


FIG 9A.

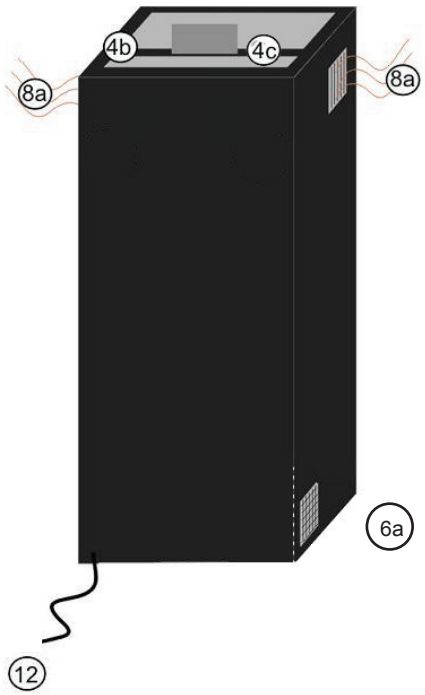


FIG 9B.

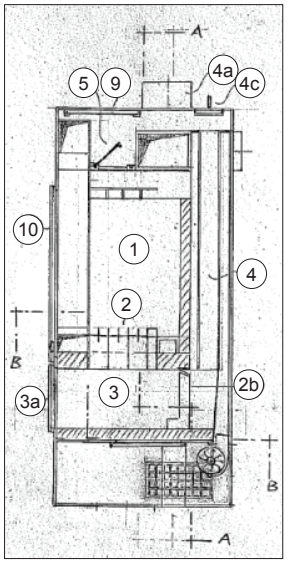


FIG 9C.

1	Upper combustion chamber
1a	Upper combustion chamber door with glass
2	Injector block with secondary air feed
2b	Upper chamber grid
3	Lower combustion chamber (gas combustion tunnel)
3a	Lower combustion chamber door with glass
3b	Lower chamber grid
4	Smoke channels
4a	Flue pipe flange with thermometer
4b	Horizontal smoke channels
4c	Lid opening for access to smoke channels for cleaning
5	Bypass Valve (function: lever in horizontal position = valve run/normal operation, lever pointing down = valve start or refuelling)
6a	Combustion air inlet (room)
7c	Thermometer
8a	Convection vent
9	Cooking plate
12	Wire for electricity supply

WARNINGS

Below is a list of warnings to ensure efficient and safe operation of your Walltherm Air® wood fire:

- **WARNING:** DO NOT USE FLAMMABLE LIQUIDS OR AEROSOLS TO START OR REKINDLE THE FIRE.
- **WARNING:** DO NOT USE FLAMMABLE LIQUIDS OR AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHEN IT IS OPERATING.
- **WARNING:** DO NOT STORE FUEL WITHIN APPLIANCE INSTALLATION CLEARANCES.
- **WARNING:** SWITCH THE BYPASS VALVE TO START BEFORE OPENING FIRE DOOR.
- **WARNING:** NEVER OPEN THE LOWER DOOR WHEN IN USE.
- **WARNING:** DO NOT TOUCH ANY PART OF THE FIRE OTHER THAN THE DOOR HANDLE WHEN IN USE, AS ALL PARTS ARE EXTREMELY HOT.
- **WARNING:** SUPERVISE CHILDREN AT ALL TIMES WHEN NEAR THE FIRE.
- **WARNING:** DO NOT ATTEMPT ANY CLEANING OF THE FIRE WHEN IN USE.
- **WARNING:** DO NOT REMOVE ASH FROM THE FIRE WHEN IN USE.
- **CAUTION:** THIS APPLIANCE SHOULD NOT BE OPERATED WITH CRACKED GLASS.
- **CAUTION:** DO NOT USE THE FIRE IF THERE IS A MALFUNCTION, A SUSPICION OF BREAKAGE OR UNUSUAL NOISES.
- **CAUTION:** NEVER THROW WATER ON THE FIRE WHEN IN USE, OR USE WATER TO EXTINGUISH THE FIRE UNDER NORMAL CONDITIONS.
- **CAUTION:** THIS APPLIANCE SHOULD BE MAINTAINED AND OPERATED AT ALL TIMES IN ACCORDANCE WITH THESE INSTRUCTIONS.
- **CAUTION:** THE USE OF PRESERVATIVE-TREATED WOOD, COAL, PLASTICS, DRIFTWOOD AND/OR WASTE PRODUCTS AS A FUEL CAN BE HAZARDOUS.