

INSTALLATION & OPERATING INSTRUCTIONS

Clean Air Freestanding Wood Fires

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GENERAL INFORMATION

- This Kent freestanding wood fire must be installed by an approved installer, ideally registered with the New Zealand Home Heating Association. Do not allow any makeshift or compromising installation methods as this could result in a house fire. This Kent freestanding wood fire must be installed according to these instructions.
- 2. A Building Consent from the Local Authority must be obtained before installing this wood fire, and we suggest that the Insurance Company covering building insurance be advised of the installation.
- 3. This Kent freestanding wood fire, when installed according to these instructions, complies with the provisions of AS/NZS 2918-2001 "Installation of Domestic Solid Fuel Burning Appliances".
- 4. The clearances given in these instructions are necessary to prevent overheating of nearby combustibles and drying out of the house structure. They may not be reduced without authorisation.
- 5. There must be a clearance of at least 1 metre between the front of this Kent freestanding wood fire and any building structure or other substantial immovable object in front of the wood fire.

RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

Important: the installer or seller must leave these instructions with the purchaser



TESTING & APPROVALS

		Externa	l fire dimensio	ons (mm)	Perfori	mance	
Model	Model No.	Width	Depth	Height	Average emissions	Average efficiency	ECAN NO *
Cardrona	KWF295-6960	535	407	648	0.80g/kg	69%	165498
Oxford	KWF295-6961	535	407	648	0.80g/kg	69%	165500
Benmore	KWF295-6962	535	407	648	0.80g/kg	69%	165499
Kiwi Rad II	KWF295-5910	585	475	645	0.80g/kg	69%	111356
Tui Rad	KWF295-6931	580	450	620	0.70g/kg	71%	111269
Tui Rad (Wetback)	KWF295-6932	580	450	620	0.66g/kg	65% WB	111270
Firenze	KWF295-5908	600	490	660	0.70g/kg	71.30%	110613
Astron	KWF295-5987	600	490	770	0.70g/kg	71.30%	110612
Astron (Pewter grey)	KWF295-5991	600	490	770	0.70g/kg	71.30%	110612
Signature	KWF295-6824	700	505	715	0.85g/kg	71.34%	111733
Haast	KWF295-6950	575	560	730	0.98g/kg	66%	144660
Aspiring	KWF295-6951	575	560	730	0.98g/kg	66%	144661
Murchison	KWF295-6952	575	560	730	0.98g/kg	66%	144662
Tilefire Max CA/II	KWF295-6936	554	730	665	0.53g/kg	69%	132877
Quantum	KWF295-5990	685	635	730	0.54g/kg	68.70%	121974
Barker II	KWF295-6934	615	634	730	0.54g/kg	71%	111240
Barker II (Wetback)	KWF295-6935	615	634	730	0.53g/kg	65% WB	111241

^{*} ECAN NO = Environment Canterbury authorisation number.

TABLE 1

FREESTANDING WOOD FIRE INSTALLATION

To adequately install a Kent freestanding wood fire the following items are required: an assembled wood fire, a floor protector, a flue system and a suitable flashing system for flashing the roof penetration.

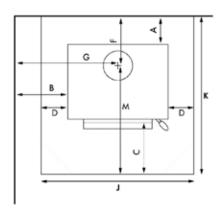
An insulating floor protector is not required for the Kent freestanding wood fire, but a single layer ash floor protector of non-combustible material must be used. The floor protector must extend under the appliance and not less than 300mm in front of the fuel-loading and ash removal openings. The width of the floor protector shall be not less than the width of the appliance and shall extend not less than 200mm from each side of any ash removal or fuel-loading openings.

Select a location for the wood fire, considering the minimum clearances required (Refer Fig. 1 & Table 2).

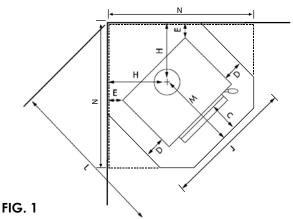
Place the wood fire into the desired position and plumb for the ceiling and roof penetrations. Allow for 150mm diameter flue pipe, 200mm diameter inner casing and 250mm outer casing. Check the proposed route of the flue to ensure it is clear of roof trusses and rafters in the ceiling space or other obstructions. It may be necessary to move the location of the wood fire to ensure this.

Once the location is confirmed, the wood fire must be restrained against movement due to earthquakes. The Kent freestanding wood fire is restrained by fixing the wood fire to the floor with two bolts of 6mm minimum diameter through the holes provided in the plinth base, through the floor protector and floor. For solid concrete floors, use 8mm DYNABOLTS® or similar, with a minimum depth of engagement into the floor of 50mm.

Wall Clearances



Corner Clearances



Minimum Installation Clearances (with flue shield) mm Hearth Clearances (mm) Model Model No. Cardrona KWF295-6960 Oxford KWF295-6961 Benmore KWF295-6962 Kiwi Rad II KWF295-5910 KWF295-6931 KWF295-6932 Tui Rad **Firenze** KWF295-5908 KWF295-5987 KWF295-5991 Astron Signature KWF295-6824 Haast KWF295-6950 KWF295-6951 **Aspiring** Murchison KWF295-6952 Tilefire Max C/A II KWF295-6936 Quantum KWF295-5990 KWF295-6934 KWF295-6935 Barker II

Tilefire (non C/A)

TABLE 2

STANDARD FLUE INSTALLATION

KWF296-6068

Cut a 260mm square penetration for the passage of the flue pipe and casings through the ceiling. Trim back and reframe timbers to allow for fixing the ceiling plate and outer liner.

Cut and frame an opening in the roof and position the outer casing through the roof until it is flush with the underside of the ceiling. Fix with 4 adequate screws to the framing of the square opening in the ceiling. Centralize 250mm flue casing in the 260mm square cut holes so each fixing point has a 5mm gap between flue casing and timber.

Ensure a suitable flashing is installed on any roof penetration point. Flash the outer casing to the roof, to make a permanent, weatherproof seal. Place the ceiling plate with folded edges upwards over the flue spigot on the wood fire.

Join the required number of flue pipes by inserting the swaged ends of the upper piece into the plain end of the lower piece. Drill and fix each length with three stainless rivets or self-tapping screws. It is important that each flue pipe joint is sealed with commercially available flue sealing compound, including the joint between the flue spigot and the first length of flue pipe.

^{*} Fuel loading opening to end of floor protector.

Note: Black painted flue pipes may only be used where they are visible. Flue pipes located wholly inside the casings in the roof space **must** be stainless steel only. Position the flue pipe into the spigot in the top of the wood fire. The flue pipe can either be lowered from the top as a single unit or fed up from the room a length at a time, ensuring that all joints are sealed and fixed properly.

Slide the inner 200mm \emptyset casing into place, between the outer casing and the flue pipe, ensuring that the spacers are fitted to maintain equal clearances around the flue and casings.

The flue pipe must extend at least 200mm above the outer casing at the top of the flue system. Extra lengths of flue pipe, inner casing and outer casing may be required to achieve the minimum distance above the roof. Joins between lengths of outer casing must be made with the upper end of the lower section inside the bottom edge of the upper length (the opposite of the method used for the flue pipe).

Place the top spreader in place and tighten. Slide the cowl transition over the flue pipe until it rests on the top spreader. Secure with stainless rivets or self-tapping screws.

Fit the rain-hat. Note: It must be removable for cleaning.

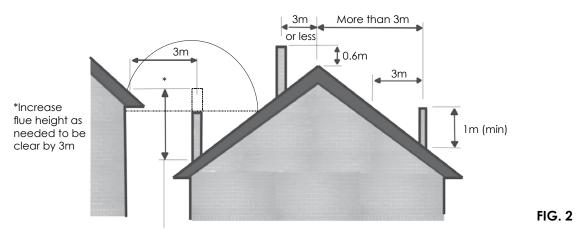
Screw the ceiling plate securely in position, through the holes provided, into the outer casing support framing. Ensure that the ceiling plate is spaced off from the ceiling by means of the spacers supplied in the flue kit. Do not fix the ceiling plate directly to the ceiling.

Where a flue terminates more than two metres above the roof penetration, it may be necessary to fit restraining guy wires for stability in high wind conditions.

The flue system should be vertical and without bends. If an offset is required, it should be as close to the wood fire as practicable and should not be offset more than 0.5 metres from the centre line of the flue stub. Clearances from the flue pipe to combustible materials must be maintained (Refer Table 2). Restrictions or leaks in the flue system may reduce the draught and, in severe conditions, could cause smoke to enter the room.

The flue pipe shall extend not less than 4.6 metres above the top of the floor protector.

The flue cowl must be at least 0.6 metres above the highest point of the roof if within 3 metres of it, or 1m above the roof penetration if more than 3 metres from point of the roof (Refer Fig. 2).



No part of a building, or any adjacent object, may be in or above a circular area of 3 metres from the flue exit.

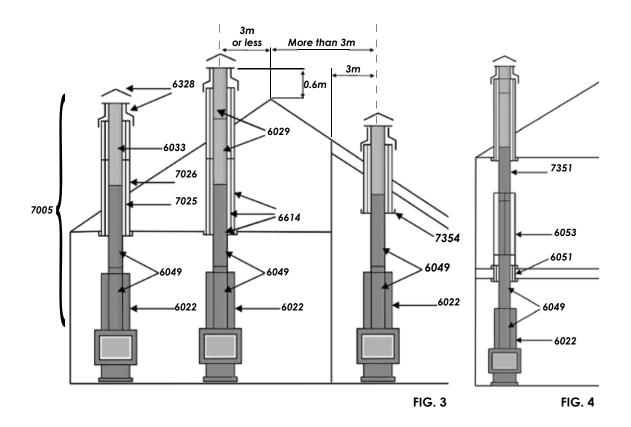
These heights are given as a general minimum, and in actual practice the presence of surrounding structures, trees, fences, etc. may necessitate additional height for satisfactory performance.

FOR MORE INFORMATION, REFER TO THE INSTALLATION INSTRUCTIONS INCLUDED WITH THE FLUE KIT.

Before the wood fire is used, ensure that a Compliance Certificate (supplied by a Registered Installer and/or Territorial Authority Inspector) is obtained for the user. We encourage initial demonstrations on how to light and operate the fire to ensure the user can confidently operate the fire for safe and efficient performance.

Single storey flue install

Second storey flue install



Model No.	Description
KWF298-7005	Kent standard flue kit 4.2m
KWF298-7006	Kent energy saver flue kit 4.2m
KWF298-6033	Kent single length stainless steel flue 150 x 1200mm
KWF298-6022	Kent stainless steel flue reflector
KWF298-6029	Kent stainless steel flue twin pack 150mm
KWF298-6049	Kent black stainless steel flue twin pack 150 x 1200mm
KWF298-6051	Kent floor penetration 200/250mm diameter
KWF298-6053	Kent 360 degree flue pipe guard
KWF298-6328	Kent stainless steel hat and cowl
KWF298-6614	Kent extension flue 150-200-250 - 1200mm
KWF298-7025	Kent galvanised flue 200 x 1200mm
KWF298-7026	Kent galvanised flue 250 x 1200mm
KWF298-7351	Kent black flue 150 x 1200mm
KWF298-7354	Kent sloping ceiling kit

OPERATION

Thank you for purchasing a Kent wood fire. Used and maintained correctly, it will provide you with many years of warmth in your home. Kent wood fires have been the main source of heating for many Kiwi homes, with nearly 400,000 installed.

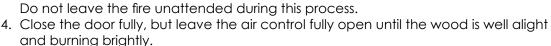
Please ensure your installer completes and signs the warranty registration card in this booklet. We encourage you to read the warranty conditions and draw your attention to improper fuel use.

Important: Read FIREWOOD information on page 7 before use.

LIGHTING

On initial light up, the presence of smoke may be noticed. This is normal and will dissipate quickly. **DO NOT BURN YOUR WOOD FIRE TOO QUICKLY TO BEGIN WITH.** Allow several small fires to build up a layer of ash in the wood fire, and cure the paint before using maximum power.

- 1. Adjust the air control knob, until it is fully open.
- 2. Place several pieces of crumpled newspaper in the base of the firebox, and criss-cross with 8-10 pieces of dry split kindling. Stack several pieces of dry split firewood no greater than 30cm in length on top of the kindling.
- 3. Ignite the paper and leave the door slightly ajar (resting it on the latch). Let the fire establish itself for 4-5 minutes, then open the door and add some more pieces of wood. Do not leave the fire unattended during this process.



Note: It may be necessary in some cases to leave the door ajar for longer periods and use more small kindling in order to establish enough heat to warm up the flue. Only when the flue is sufficiently warm to create the necessary draft to maintain the fire may the door be fully closed. It may take trial and error to find a lighting procedure that suits your situation.

NORMAL OPERATION ONCE THE FIRE IS ESTABLISHED

The Kent wood fire requires fresh air for optimal burning, and this must come from outside the house. A normal house will allow enough air in through incidental openings to satisfy this. We recommend that a source of air be located near the wood fire for best performance. This can be simply a window that is left ajar while the wood fire is in use. If this is not possible, and the house is particularly air-tight, a vent may need to be installed next to the wood fire to provide the air required. Lack of air will lead to a wood fire that is hard to light and get going, or in bad cases, to smoke spilling back into the room.

While an air control is fitted, it is recommended that, for the cleanest operation, this is left fully open and the amount of heat generated is adjusted by the amount of fuel that is used. The heater burns cleanest when it is running at a high rate.

Once the fire is well established, the output can be regulated by the amount of wood that is used

To reload the fire, open the air control fully, and then open the door. Note that the fire burns hottest at the front of the firebox and so there may be unburnt wood at the back when it comes time to reload. This is normal. Rake through the contents to move any unburnt wood forward and then place the desired amount of wood into the firebox. Close the door.

The view of the flame through the glass door will give you the best indication of how your wood fire is performing. In order to accomplish maximum combustion performance, the fire should give a rolling, boiling flame pattern. At reduced setting the flame will be slower.

For all practical purposes, the air control should be fully open when there is unburnt wood in the wood fire. Fire holding periods may be increased by turning down the air control, this is at the cost of greater emissions and creosote production. At low settings, creosote may condense on the glass, reducing the visibility of the fire. The best indication that the fire is operating correctly is that the glass remains clean, without build-up of black or brown deposits. Some whitish bloom on the glass is normal and does not generally indicate a fault in operation.

The way you burn your wood fire will also determine what is happening up the flue. Continued burning at high rates with a good clean flame will minimise soot and creosote deposits in the flue.

CLEANING OUT THE WOOD FIRE

Your wood fire should require minimum cleaning. If the wood fire is operated correctly according to the instructions most of the ash will be consumed by later fires and a bed of ash will be maintained that does not build up to any great extent.

If you find that you have to clean out ashes every day or so, it indicates that the wood fire is not being operated correctly. Either excessively wet wood or foreign materials are being burnt, or the air control is being turned down too much.

Don't clean out the firebox completely. Leave approximately 25mm of ash in the bottom of the firebox after cleaning. These ashes in the bottom of the wood fire assist the burning process, by insulating the firebox and allowing air circulation under the fire bed.

When emptying ashes use a metal container with a tight fitting lid. Do not use this container for any other purpose. The closed container of ashes should immediately be taken outdoors to a location well away from any combustible materials, pending final disposal. If the ashes are to be disposed of by burial in the garden or otherwise locally dispersed, they should be retained in the container until they are completely extinguished and cold. This may take several days.

CREOSOTE FORMATION AND NEED FOR REMOVAL

We recommend the flue of your wood fire is inspected before use at the start of the heating season and also periodically during the season. When you are able to operate the wood fire without creating creosote deposits, the interval between inspections may be increased, but the flue must always be inspected and cleaned at least once a year.

The flue should be swept by a professional chimney sweep to remove any build-up of creosote and soot. A professional sweep should also advise of any problems that may be detected in the inspection of the flue and offer advice on any repair and replacements. Your Kent wood fire requires minimal maintenance, and will keep its good looks for a long time with just a little attention.

FIREWOOD

Modern clean burning wood fires are designed to burn seasoned dry natural soft wood only, such as pine.

The moisture content of the wood affects the performance of your wood fire greatly. The most important thing you can do to operate your wood fire correctly is to use the correct seasoned dry wood. All types of seasoned natural wood will burn in your wood fire, but your wood fire is tuned to burn clean, dry soft woods.

Fossil fuels such as coal are not suitable. Do not burn garbage or large quantiles of paper, cardboard or similar materials. Do not use chemically impregnated timber, reclaimed wood from wet environments and do not use drift wood. These corrode the components of the wood fire and flue systems reducing the life of your wood fire.

Important: Kent freestanding wood fires with a wood box are designed for temporary wood storage only. Store your "ready-to-use" firewood away from the wood fire while in use. If firewood is placed near or under the wood fire it must be there for reloading use only, and be rotated through often to stop the firewood becoming tinder dry and a potential fire safety hazard.

Handy Hint: When preparing firewood for use, store it in an open shed exposed to wind. If stored in an enclosed garage or shed it will take longer to dry out.

DO NOT BURN TREATED TIMBER
DO NOT BURN WET OR UNSEASONED WOOD

MAINTENANCE

CLEANING

The exterior surfaces of the wood fire should be cleaned when needed with a damp cloth and non-abrasive cleaner. Use of caustic or abrasive cleaners will damage the finish on the wood fire. If, due to continued burning at low temperature, the door glass is dirty, use a paper towel moistened with water and dipped in the cold ashes from the fire to lightly scrub the inside of the glass. Remember that a properly operated wood fire will keep the glass clean by itself.

LUBRICATION

The door hinges, door handle spindle and air slide mechanism should be lubricated periodically with a suitable high temperature grease. Do not use too much as this can melt and drop down onto the hearth staining it.

RE-PAINTING

All Kent wood fires are finished in high temperature paint. If marks or scratches occur, it can easily be touched up using Stove paint in the correct colour. Paint is available from your Kent retailer.

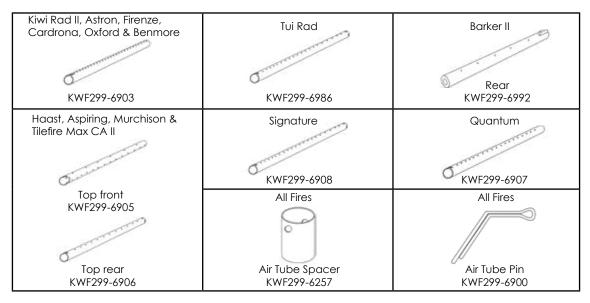
MAINTENANCE RECORDS

Date	Maintenance

REPLACEMENT PARTS

Replacement parts must be original Kent parts. Maintenance required should be carried out by qualified service people. Please consult your Kent retailer for their details. The wood fire should not be modified in any way except in accordance with instructions supplied by Kent.

KENT AIR TUBES



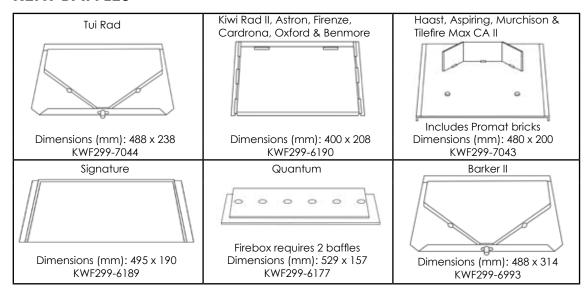
The air tube in your Kent wood fire is an important part of the appliance and helps ensure a clean, efficient and controllable burn. However, air tubes are a consumable item and are designed to be replaced as they are likely to degrade with use due to the exposure to the extreme heat of the fire.

The life of the air tube will depend on what is burnt in the fire, how hot the fire usually burns and also the ash level. If the ash level is allowed to build up. It means hot embers are in closer proximity to the tube, increasing the temperature exposure. Keep ember levels to the recommended maximum height of 3cm below air tubes.

Replacing air tubes:

- 1. Remove bricks from both sides
- 2. Remove the pin from the end of the old tube
- 3. Slide tube to one side; this will release the opposite end
- 4. Pull released end up and towards the door and remove
- 5. Reverse process for new tube

KENT BAFFLES



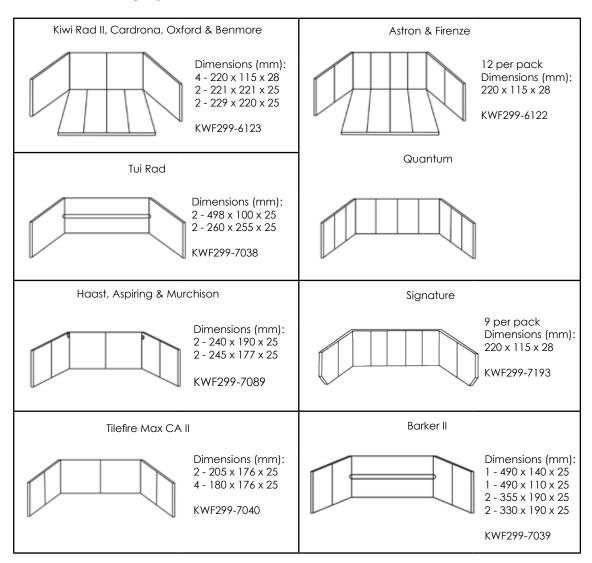
The baffle in your Kent wood fire is an important part of the appliance and helps ensure a clean, efficient and controllable burn. However, baffles are a consumable item and are designed to be replaced as they are likely to degrade with use due to the exposure to the extreme heat of the fire.

The life of the baffle will depend on what is burnt in the fire and how hot the fire usually burns.

Replacing baffles:

- 1. Remove side bricks from the fire
- 2. Pull the old baffle out of the locater hole in the rear of the fire
- 3. Allow the front of the baffle to drop forward and down to the bottom of the fire
- 4. Rotate and remove through the door
- 5. Reverse process to install new baffle

KENT FIRE BRICKS



The fire bricks in your Kent wood fire are an important part of the appliance and helps ensure a clean and efficient burn. However, fire bricks are a consumable item and are designed to be replaced as they are likely to degrade with use due to the exposure to the extreme heat of the fire.

The life of the fire bricks will depend on what is burnt in the fire and how hot the fire usually burns and also any damage sustained from wood not being positioned correctly.

At the risk of damaging the fire box, fire bricks should be replaced when they are damaged enough that they no longer remain in place and cannot perform their intended function. Fire bricks which are only cracked but still remain in place do not need to be replaced and are safe to use.

Note: For all other fire parts please contact your Kent dealer.

WARRANTY

STANDARD WARRANTY

Your Kent wood fire is warranted for 10 years on the firebox with the exception of the following Kent parts: glass, glass seal, door seal, fire bricks, flue, secondary air system and removable baffle which will all have a 12 month warranty (parts only) provided they have been installed by an approved installer. The warranty does not apply to normal wear and tear, misuse or neglect, nor if parts of the wood fire are replaced with non genuine Kent parts. Kent recommends a flue sweep and annual service with replacement of any worn parts recommended, to obtain maximum life out of your wood fire. Please note that with everyday use you must expect some visual signs of wear on the surface of this product.

CONDITIONS

Your Kent wood fire must be installed in accordance with the manufacturer's instructions and all applicable standards, regulations and by-laws. Your Kent wood fire must be installed with an approved flue system. Failure to do so may void your warranty in its entirety. The company is not liable for any consequential damage by a failure or defect covered in this warranty. All claims against the warranty must be directed in the first instance to the retail outlet from which you made your purchase. Any repairs undertaken without the express authority of Kent will invalidate this warranty. This warranty does not cover damage caused by wetbacks/water boosters, burning improper fuels including but not limited to (driftwood/treated wood/coal or plastic-based waste), or installation, plumbing and sweeping work done by others (the installer is liable for any incorrect procedures or poor workmanship).

TRANSFERABILITY

Your Kent wood fire warranty is transferable on the sale of the home where the wood fire is installed. Nothing in this warranty is intended to limit any conditions of the warranty right or remedy pursuant to the Consumer Guarantee Act 1993, except to the extent permitted under the Act. Your Kent wood fire is intended for domestic use only and the warranty is not valid for wood fires to be used for business purposes. Kent reserves the right to alter or amend specifications or designs of its product without prior notice.

Please keep this cop	y for your records.
MODEL:	
SERIAL NUMBER:	
RETAILER:	
PURCHASE DATE:	
	attached to your warranty record)
INSTALLER NAME:	
DATE INSTALLED:	
NZ HOME HEATING ASSOCIATION NUMBI	ER:
INSTALLER SIGNATURE	=-

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