

Part I: Installation Instructions for **WAGENER SPARKY**

(Please keep these Instructions for future Reference)

Important Message to the Owner

Please read fully the Operation & Maintenance Instructions with your Wagener Sparky **BEFORE lighting** your first fire. Your insurance company may require notification of the installation. Please check.
If a Wet Back is fitted it must be connected to the water supply or damage will result.
Such damage is not covered by Warranty. Tempering Valves should be installed to the system for safety. Tempering Valves may be a Permit Requirement. Check with your Building Inspector or Local Council.
BIA: As from 22 April 2003 Automatic Smoke Detectors/Alarms are mandatory in all new homes and when solid fuel heating appliances are installed. Permits will not be signed off if alarms are not fitted.

Important Message to the Installer

The Wagener Sparky freestanding multi-fuel heater has been tested to and complies with AS/NZS 2918:2001 - Domestic Solid Fuel Burning Appliances.
The Wagener Sparky must be installed in accordance with these installation instructions to comply with AS/NZ 2918-2001-Domestic Solid Fuel burning appliances.

Installer's Responsibilities

Installation of the Wagener Sparky must be in accordance with these instructions.
Any variation from these installation instructions or any doubts about them must be checked against requirements of the AS/NZS 2918-2001. The installation must be carried out by a suitably qualified installer. We recommend using an NZHHA Accredited Technician.

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

THE APPLIANCE AND FLUE SYSTEM SHOULD NOT BE MODIFIED IN ANY WAY WITHOUT THE WRITTEN APPROVAL OF THE MANUFACTURER.

WARNING: DO NOT CONNECT WET BACKS TO AN UNVENTED HOT WATER SYSTEM

INSTALL IN ACCORDANCE WITH AS 3500.4.1 OR NZS 4603 AND THE APPROPRIATE REQUIREMENTS OF THE RELEVANT BUILDING CODE OR CODES

CAUTION: MIXING OF APPLIANCE 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.

CAUTION: CRACKED AND BROKEN COMPONENTS, e.g. GLASS PANELS OR FIRE BRICKS, MAY RENDER THE INSTALLATION UNSAFE.

Flue System

Must be manufactured in accordance with AS/NZ 2918-2001 and tested to Appendix F. See installation instruction section on page 5.

PLEASE LEAVE THESE INSTRUCTIONS WITH THE OWNER WHEN THE INSTALLATION IS COMPLETED

Preliminary Installation Procedures for WAGENER SPARKY

To get full benefit from your Wagener Sparky it is important that it is installed correctly, both for efficiency and safety sake. The following points should be noted:-

1. The characteristics of the Wagener Sparky will determine its position within the home. As a general rule an interior wall installation suits flue requirements better than against an exterior wall. Sparky may also be positioned in front of an existing open fireplace – see separate specification page.
2. Check for flue obstructions above the ceiling. (e.g. header tanks, electrical mains or load bearing roof supports).
3. The minimum vertical flue height for satisfactory operation is 4.2metres above the top of Sparkys Flue Flange. The performance of Sparky depends more on the flue than on any other single component. It is the draw on the flue that drives the stove.
4. Remember a permit is required from your Local Authority.

Floor Protector/Hearth Requirements & Positioning

NB Note different requirements for leg and log box base models

Sparky on Legs requires an **INSULATING floor protector hearth** a minimum size of 810mm wide x 760mm deep. Sparky can sit directly on to a concrete floor which may be overlaid with tiles etc .

On wooden floors a minimum of one sheet of micorel60 board (16mm thick) with a non combustible and supportive upper surface of tiles, slate, treadle plate or the like is required.

Sparky on a Log Box Base requires an **ash hearth floor protector only** of a minimum size of 610mm wide and 760mm deep. (eg Tiles, slate, treadle plate etc) The Ash Hearth floor protector shall have an upper surface, including grouting, of durable, non-combustible material. All joints in the surface must be sealed to protect and prevent ash or spilled embers reaching the floor.

Floor protection must extend under the stove and forward 300mm and 200mm to each side of leg model and 150mm to each side of log box base model.

For concrete floors trim any floor coverings to the same minimum hearth requirement.

NOTE: SPARKY MUST BE AFFIXED TO THE HEARTH AND FLOOR FOR SEISMIC RESTRAINT.

For Seismic Restraint secure through two holes in the rear legs or through the base of the log box and screw through the hearth and into the floor.

Wet Back Fitting

Sparky can be fitted with a wet back.

We recommend that you use the “Lion” Wet Back which has been designed and tested specifically for the Sparky. In general, wet backs are factory fitted at the time of ordering.

However, a suitably qualified person can fit or change the wet back out in the field if this is required.

Water must always be present in the wet back.

The wet back **MUST** be connected by a Registered Plumber to an open vented system.

Tempering valves are required.

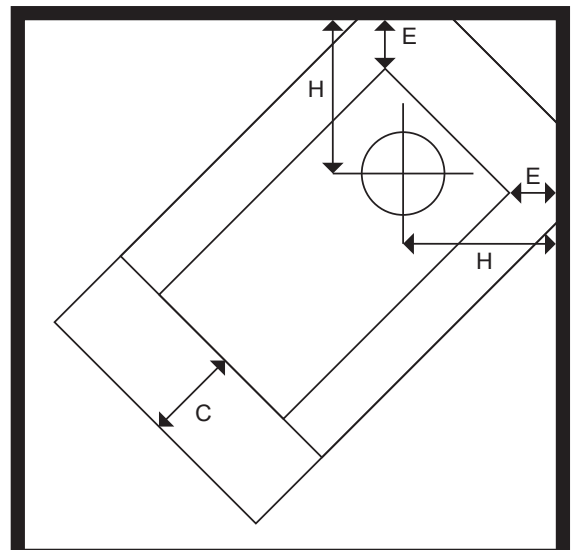
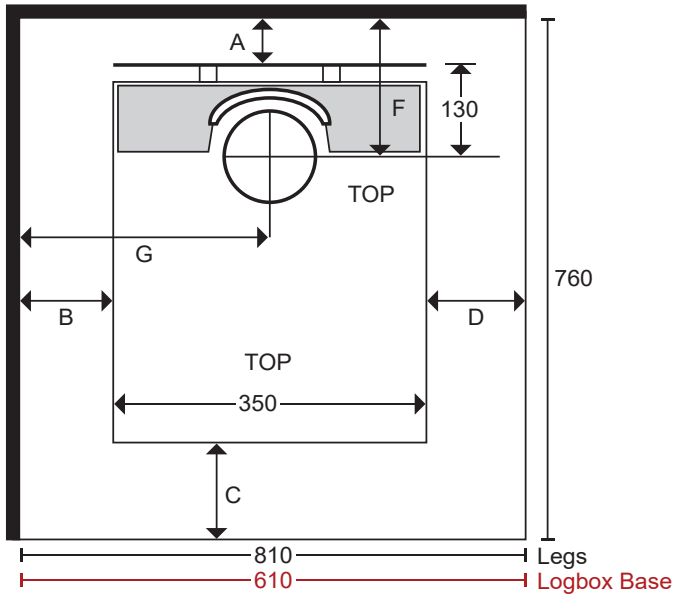
Please check the PH level of the water supply as wet backs can become fouled with lime which will void the warranty. NB Some coals are very corrosive and may shorten the life of the wet back – please check with the supplier as this is NOT covered by warranty.

Please advise the householders **NOT** to boil the wet back as this will cause vibrations and will fatigue the wet back, the pipes and the cylinder. This will **NOT** be covered by the warranty.

WAGENER SPARKY

Installation Clearances

AS/NZ Standard 2918:2001



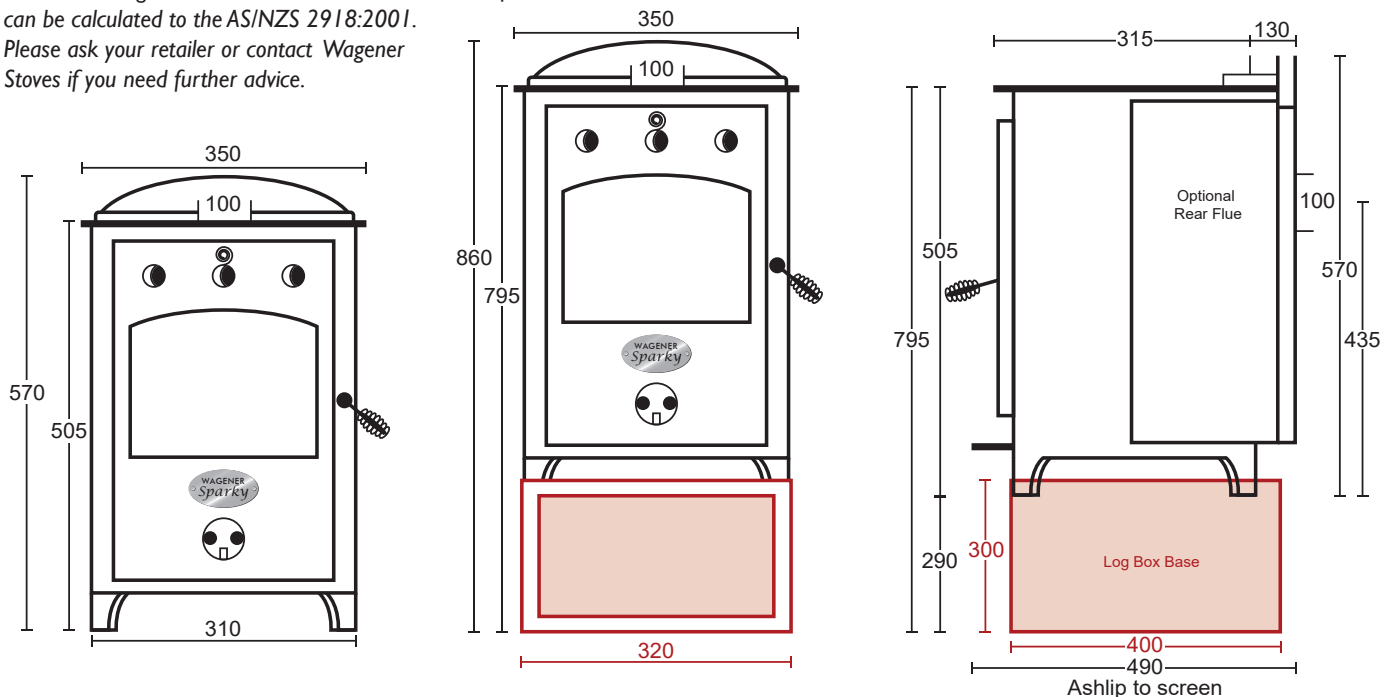
- Optional log box base requires ash hearth floor protector only
- Standard leg model requires insulated hearth floor protector (eg One sheet micore board with tiles glued and grouted to top surface)

Wetback pipe heights

- On legs 205mm & 285mm
- On base 495mm & 575mm

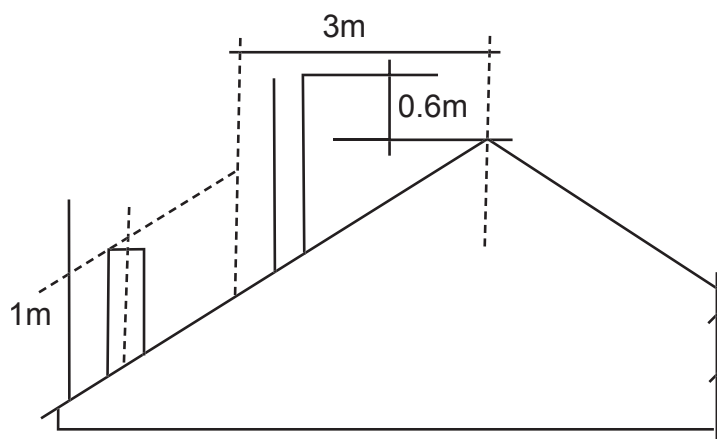
Minimum clearance to Combustible Surfaces	A	B	C	D	E	F	G	H
With stainless steel flue shield to unprotected wall	50	550	300	150* 200*	250	180	725	450
As above 12mm Eterpan LD board spaced 25mm off wall	37	160	Floor protection must extend under the stove and forward 300mm. *Leg model 200mm to sides. Log base model 150mm to sides.		73	167	335	273
As above with sheet metal any type 0.5mm or thicker spaced 25mm off the wall.	26	165			75	156	340	275
Sheet metal as above 2 sheets spaced 12mmx12mm	26	110			50	156	285	250

Other screening materials are available and clearance factors can be calculated to the AS/NZS 2918:2001. Please ask your retailer or contact Wagener Stoves if you need further advice.



Flue Installation

The Wagener *Sparky* uses a 100mm diameter flue. It is imperative that the connection between the flue and the flue spigot is sealed using a recommended flue sealant. If an offset bend is required it should be as steep as possible to enable ease of cleaning. Extra flue height may be required to compensate for lack of draw. **The performance of the Wagener *Sparky* depends more on the flue than on any other single component as it is the draw on the flue that drives the *Sparky*. We recommend 4.2 metres of flue.**



The top of the flue system should be at least 1000mm above the roof or at least 600mm higher than any obstacle or ridge within 3 metres of the flue.

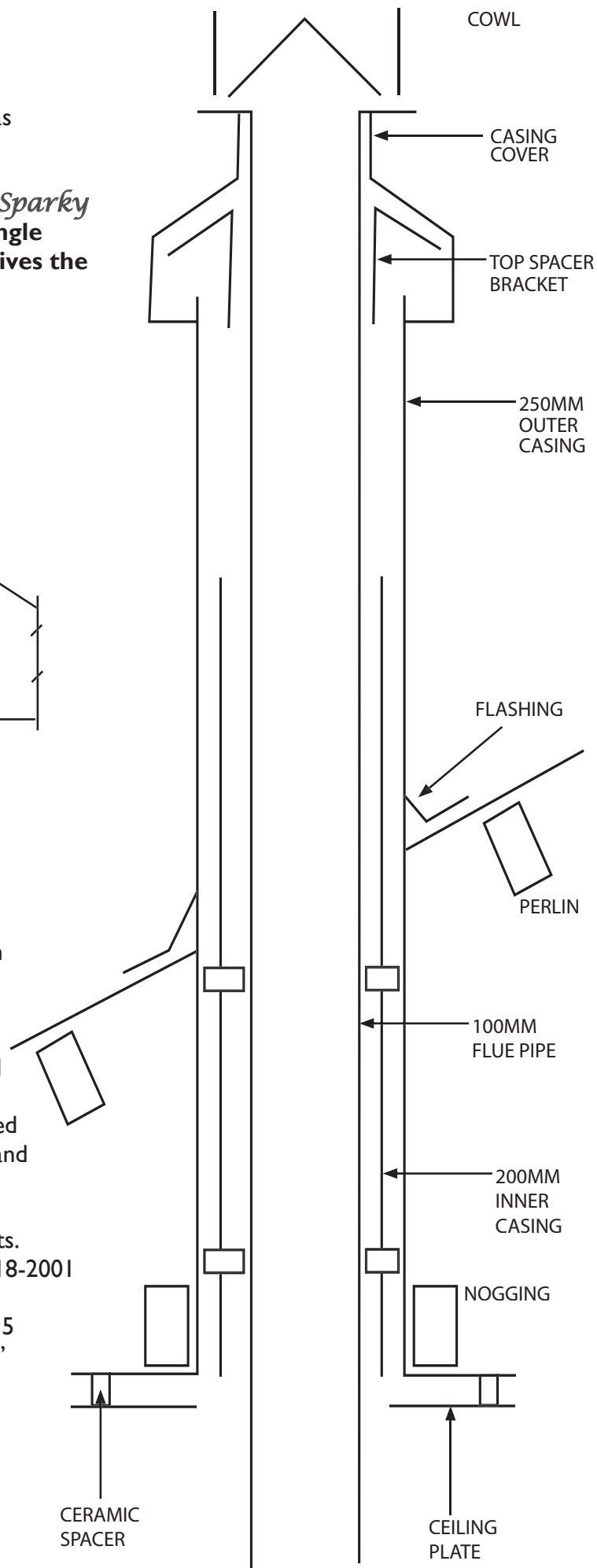
A total minimum vertical flue height ABOVE the Wagener *Sparky* of 4.2 metres is normally required for adequate draft.

Joints between sections of the flue pipes are push fitted so that the upper section enters the bottom section and must be SEALED using a flue sealant.

Each section should be secured to prevent separation using 3 stainless steel self tapping screws or pop rivets.

Only flue systems which comply with the AS/NZS 2918-2001 should be used.

Please follow flue manufacturers instructions on page 5 "100mm Free Standing Woodfire Flue Kit Installation" Instructions'. **NB. Bird netting is available**



100 mm Free Standing Woodfire Flue Kit

Installation Instructions (See illustration Page 4)

This flue kit has been manufactured in accordance with AS/NZS 2918:2001 and tested to appendix F. To ensure safety this flue kit must be installed as outlined in these instructions. Heater and flue clearances from combustible walls must be in accordance with heater manufacturer's specifications and AS/NZS 2918:2001. These installation instructions are for tested appliances only.

1. Locate heater in its proposed position and mark a point on the ceiling that is directly above the centre of the heater's flue outlet. Check that the heater's location allows the OUTER HEAT SHIELD to clear all structural roof timbers.
2. Cut a 260mm square hole in the ceiling. Directly above cut a hole in the roof to accommodate OUTER HEAT SHIELD.
3. Fit timber nogs around ceiling and roof holes. i.e. Nogs form a 260mm square aperture which allows air to circulate freely over the OUTER HEAT SHIELD surface.
4. Position the OUTER HEAT SHIELD so that it is flush with the underneath of the ceiling and protrudes through the roof the required height. (Refer to AS/NZS 2918/2001 if more details are required). When calculating roof penetration height allow for an extra 500mm that can be achieved by using the OUTER HEAT SHIELD SLIP EXTENSION.
 - a) If the flue is within 3 metres of the ridge, the OUTER HEAT SHIELD must protrude at least 600mm above the ridge of the roof.
 - b) If the distance from the ridge is more than 3 metres, the OUTER HEAT SHIELD must protrude at least 1000mm above roof penetration.

Additional OUTER HEAT SHIELD and INNER SHIELD (BAFFLE) may have to be added to ensure the correct roof penetration heights are obtained.

5. Fix an appropriate flashing around the OUTER HEAT SHIELD to seal onto the roofing material.
6. From the roof slide the INNER SHIELD into the OUTER HEAT SHIELD until it rests 12mm above ceiling level.
7. Assemble FLUE PIPES together ensuring seams are in line. Secure each joint with 3 rivets or self-tapping screws. FLUE PIPES must be assembled with crimped ends down. (towards heater)
8. Place CEILING PLATE over heater flue spigot, ensuring the folded edge upstands are facing the ceiling.
9. From the roof lower FLUE PIPE through OUTER HEAT SHIELD into position.
10. Before securing the OUTER HEAT SHIELD SLIP EXTENSION to the OUTER HEAT SHIELD with 3 rivets or self tapping screws, ensure the FLUE PIPE extends above the top of the OUTER HEAT SHIELD SLIP EXTENSION 145mm. Adjust SLIP EXTENSION to obtain this measurement. If minimum roof penetration heights described earlier can not be achieved add sufficient stainless steel FLUE PIPE.
11. Fit TOP FLUE SPACER BRACKET to the FLUE making sure the lugs fit snugly inside OUTER HEAT SHIELD SLIP EXTENSION. Make sure TOP FLUE SPACER BRACKET fits hard down onto OUTER HEAT SHIELD SLIP EXTENSION.
12. Fit CASING COVER over the FLUE PIPE and push down firmly onto TOP FLUE SPACER BRACKET. Secure with a rivet or self-tapping screw.
13. Fit COWL but do not secure, as removal for flue cleaning will be necessary.
14. Fasten CEILING PLATE to ceiling using screws and spacers provided. Ensure an even air gap around FLUE PIPE when fixing. Remove protective plastic from CEILING PLATE.

N.B. 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 flues and that relevant Local Body requirements are adhered to.

Part 2: Operation & Maintenance Instructions for WAGENER SPARKY

Message to the Owner

Thank you for purchasing Sparky

With care and common sense your Wagener Sparky will give you many years of trouble free service.

We recommend an annual safety check of flues, bricks, door seals, door catches, air controls and the like.

WARNINGS AND CAUTIONS

1. **WARNING: ANY MODIFICATION OF THE APPLIANCE THAT HAS NOT BEEN APPROVED IN WRITING BY THE TESTING AUTHORITY IS CONSIDERED AS BREACHING AS/NZS 4013.**
2. **WARNING: DO NOT USE FLAMMABLE LIQUIDS OR AEROSOLS TO START OR REKINDLE THE FIRE.**
3. **WARNING: DO NOT USE FLAMMABLE LIQUIDS OR AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHEN IT IS OPERATING.**
4. **WARNING: DO NOT STORE FUEL WITHIN HEATER INSTALLATION CLEARANCES.**
5. **WARNING: DO NOT OPERATE THIS APPLIANCE AS AN OPEN FIRE. IT IS NOT TESTED TO BE USED IN THIS WAY AND WILL BE CONSIDERED AS BREACHING AS/NZS2918:2001.**
6. **WARNING: OPEN AIR CONTROL TO FULL AIR SUPPLY BEFORE OPENING FIRE DOOR.**
7. **CAUTION: THIS APPLIANCE SHOULD NOT BE OPERATED WITH A CRACKED GLASS.**
8. **CAUTION: THIS APPLIANCE SHOULD BE MAINTAINED AND OPERATED AT ALL TIMES IN ACCORDANCE WITH THESE INSTRUCTIONS.**
9. **CAUTION: THE USE OF SOME TYPES OF PRESERVATIVE-TREATED WOOD AS A FUEL CAN BE HAZARDOUS.**

Further Cautions & Over Firing

Never use Sparky with the door ajar or open. This will cause over firing and damage to your stove & flue which will NOT be covered by warranty as well as being potentially dangerous.

SIGNS OF OVER FIRING: Flue turns red hot, stove “roars”, cooktop surface becomes red hot.

POSSIBLE CAUSE OF OVER FIRING

1. Excess flue length/ windy conditions
2. Door Ajar
3. Faulty door seal
4. Full load of very dry, small wood
5. Dirty flue catches fire

REMEDY

- Move Air Control to reduce or close air supply
Close door
Replace faulty door seals
Don't load excess fuel
Close Air Supply. Call fire brigade if necessary.
Inspect & Clean Flue when cold.

Sparky is HOT while in operation and contact may cause burns.

CREOSOTE OR SOOT FIRE: In the unlikely event of a soot or creosote fire occurring see Remedy 5 above.

Operating Your WAGENER SPARKY

Fuels – Wood & Coal

1. **Wood** - Dry, seasoned wood should be used at all times and, as a general rule, the harder the wood the longer it will burn.

Try to buy wood well in advance and store so that the air can circulate through the pile to assist drying. Wet, unseasoned wood (under 12 months old) can cause creosote problems, especially if it is burned slowly. If unseasoned fuel is used, special care should be taken to ensure that the fire is actually burning and not just smouldering which will precipitate a creosote problem.

DO NOT burn driftwood or treated timber as they will damage your Sparky and flue and void your warranty.

2. **Coal** – To burn coal you will need to start the fire with wood to establish a good base fire bed of hot embers. Then add coal a little at a time allowing the coal to burn before adding more. Once the desired fuel load has been added and is burning well adjust the air controls to achieve desired burn rate.

WARNING: Some coal types are very corrosive to the fire box, flue and wet back. Corrosion is not covered by the warranty – please check with your coal supplier.

NOTE: The heat output level of Sparky is controlled not only by the air control but also by the type and quality of fuel in the firebox.

First Burn on a New Appliance or Repainted Appliance

On INITIAL LIGHTING, the high temperature paint used on Sparky will give off smoke and odour for a short period. This is a temporary condition.

Open your doors and windows to give adequate ventilation.

To condition the firebricks (ie remove moisture to prevent cracking) your first 2-3 fires must be small.

Start Up

1. Open both air controls above and below door glass to the fully open position. Slide wire air control above door to the right and rotate lower air control so that holes are fully open.
2. Open the firebox door. Place crumpled newspaper on top of the firebox grate (if using firelighters place firelighters under the newspaper). Stack kindling around it like an Indian Tepee and light the newspaper (or firelighters), then close the firebox door. Once the kindling is well alight add slightly larger pieces of wood until you have a good healthy fire. **If burning coal see instruction above.**
3. Refuel once the fire is established and adjust the air controls to the desired setting when the fire is burning well.
4. It should not be necessary to fill the firebox to capacity. Smaller loads of wood burned on half air supply will produce more heat per kg of wood. Flue length and outside wind may affect the performance of the fire.
5. Over Firing will damage your stove & flue system and will void your warranty. Please refer to page 6 - Signs of Over Firing, Causes and Remedies.

Stove Top Cooking

Establish a good fire and allow Sparky to heat up. Never cook food directly on the top of the stove. Sparky is not a BBQ. Always use pots, pans and appropriate cooking implements.

Slow Burning

Ensure that your Air Controls are fully open and that you have a good base of hot embers. Add a full load of larger pieces of hardwood. Allow to burn for 10-20 minutes before moving the Air Controls to low (almost closed position).

Sparky will now burn away for long periods on low.

At the end of a slow burn open the air controls. Rake the embers and re-establish the fire by adding a few small split logs and allow the firebox temperature to build up before adding the balance of the fuel.

The addition of large quantities of cold fuel to a low fire will reduce the firebox temperature dramatically and this may result in 'losing' the fire. Proceed with fire as before.

MAINTENANCE AND CLEANING

Ensure that Sparky is cold and that there are no hot embers in the fire box.

The outside of Sparky may be cleaned with a soft dry rag. Sparky is coated with "high temperature black paint" and can be recoated using a spray can of suitable high temperature paint.

Ash Removal

Over a period of time ash will build up in Sparky requiring removal. Ash build-up will depend upon the quality and quantity of your fuel.

To empty ashes from the fire box, rake ashes on the grate with poker, to loosen and allow them to fall through to the ash pan below. Dispose of the contents of the ash pan in a non-combustible container with a tightly fitting lid. Place container outdoors immediately to a location clear of any combustible materials.

Door Glass

Under normal operating conditions, using seasoned fuel, the door glass in Sparky should remain relatively clear. If the glass becomes dirty it can be cleaned by dipping a damp paper towel into the dry cold ashes, and rubbing gently on the dirty glass to clean. If in the unlikely event your door glass breaks it must be replaced with a 5mm ceramic glass. This can be purchased through your Wagener Stoves Dealer.

NOTE: Do not operate Sparky with broken door glass and under no circumstance should a non-ceramic type glass be used as it may explode due to the intense heat inside the fire box.

The Door Seals

The door seal should be checked and adjusted to provide a perfect seal at all times. Excess air entering the fire box past a faulty seal will make it impossible to achieve a slow burn, and may result in over firing Sparky and causing damage.

Fire Box Bricks

Fire Bricks serve two purposes. Firstly, to protect the steel chassis and secondly to maintain high temperatures in the fire box to effect complete combustion of the fuel. Cracked and broken bricks should be replaced. Remember to place your fuel in the firebox rather than throwing it in. This will extend the life of your bricks.

Baffle & Brick Removal & Assembly

Ensure Sparky is cold

Remove the ash pan, grate and grate stand through the door. Remove back brick by lifting up and pulling forward at the top and position to bring out through the door. Slide side bricks out at the bottom, one at a time, angled towards the centre of the fire box and lift out diagonally. Then remove steel grate supports from each side. Note Bricks sit on lugs of the grate supports which should face the outside of the fire box.

Reach up and lift the front baffle upwards, then tilt it forward and bring it down to a position where it can be removed through the door. Next slide the rear baffle forward and drop the front edge down towards the door and angle to remove. Note when replacing rear baffle holes are to the front and front baffle bolts locate in these holes. No nuts are required. Both baffles smooth surface faces upwards

Reverse this order for replacing bricks, baffles and grates etc

Flue Cleaning

Flue cleaning and maintenance is probably best done by a professional who can also advise you on the condition of your flue and other parts like bricks and seals. This should be done annually. However, if you are cleaning the flue your self first allow the fire to go out and Sparky to cool down. Remove the cowl and rod the flue downwards from the roof. Remove the baffle to clean out the soot from the firebox. Alternatively remove the baffle and rod the flue upwards, from inside, through the open firebox door.