

# Part I: Installation Instructions for WAGENER SPARKY CA (Clean Air)

(Please keep these Instructions for future Reference)

The Wagener Sparky CA freestanding woodfire has been tested to and complies with AS/NZS 2918:2001- Domestic Solid Fuel Burning Appliances and complies with AS/NZS 4012:2014+AI at 68.1% overall efficiency and AS/NZS 4013:2014 at 0.55% emissions.

## Important Message to the Owner

Please read fully the Operation & Maintenance Instructions with your Wagener Sparky CA **BEFORE lighting** your first fire. Your insurance company may require notification of the installation. Please check. 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

### Installer's Responsibilities

The Wagener Sparky CA must be installed in accordance with these installation instructions to comply with AS/NZS 2918-2001-Domestic Solid Fuel burning appliances.

Any variation from these installation instructions or any doubts about them must be checked against the requirements of the AS/NZS 2918-2001

The installation must be carried out by a suitably qualified installer.  
We recommend using an accredited NZHHA 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.**

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.

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

# Preliminary Installation Procedures for WAGENER SPARKY CA – Woodfire

To get the full benefit from the Wagener Sparky CA wood fire 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 CA will determine its position within the home. As a general rule an interior wall installation suits flue requirements better than against an exterior wall.
2. Check for flue obstructions above the ceiling. (header tanks, electrical mains or load bearing roof supports and the like).
3. The recommended vertical flue height for satisfactory operation is 4.2metres above the top of Sparky CA's Flue Collar Panel. The performance of Sparky CA 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.

## Flue System

Must be manufactured in accordance with AS/NZS 2918-2001 and tested to Appendix F.

**See installation instructions on pages 4, 5 & 6.**

**NOTE:** A purpose designed and tested petite flue system is available for Sparky CA using a 100/150/200mm system with a reduced flue shield and ceiling plate.

## Flue Shield

Sparky CA requires a single flue shield standing 1000mm high and spaced 30mm above the flue collar panel. Please refer to fitting instructions supplied with the flue shield.

## Floor Protector/Hearth Requirements & Positioning

**Sparky CA** requires an **ash hearth floor protector only** of a minimum size of 610mm wide and 855mm deep. (eg Tiles, slate, treadle plate etc)

The Ash Hearth floor protector shall have an upper surface, including grouting if required, of a 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 Sparky CA and forward 300mm and be 200mm from each side of the firebox door opening. (120mm from the side panel)

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

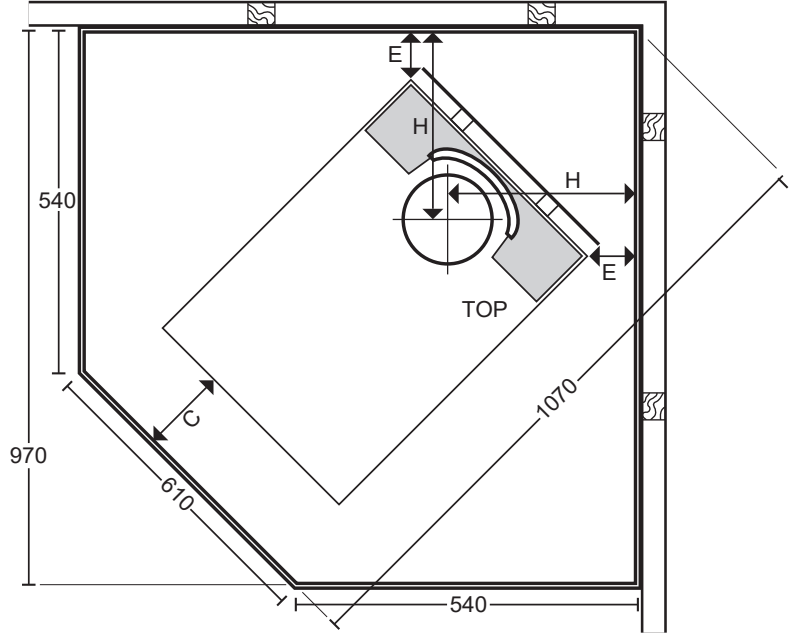
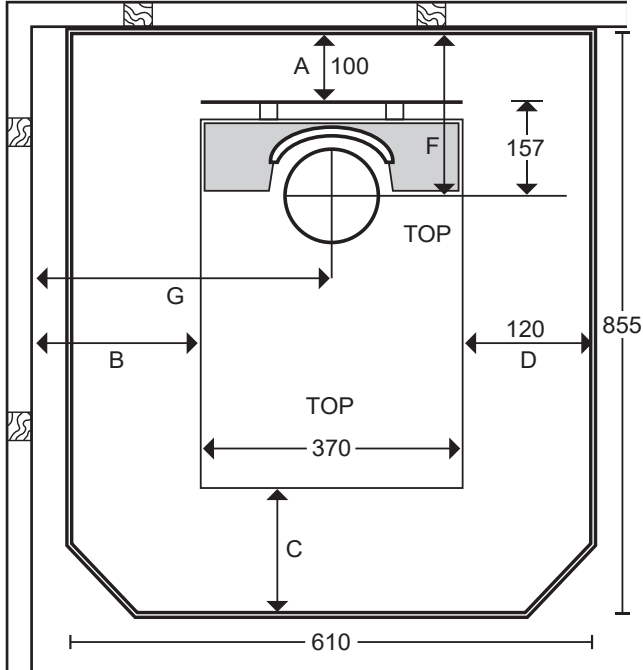
**NOTE: SPARKY CA MUST BE AFFIXED TO THE HEARTH AND FLOOR FOR SEISMIC RESTRAINT.**

For Seismic Restraint secure through two holes at the rear of the log box and screw through the hearth and into the floor.

# WAGENER SPARKY CA - WOODBURNER

Installation Clearances as tested to AS/NZ Standard 2918:2001

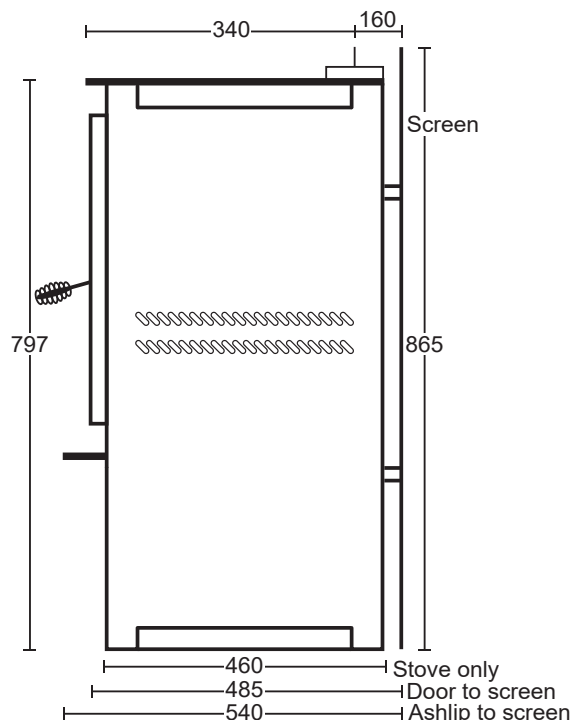
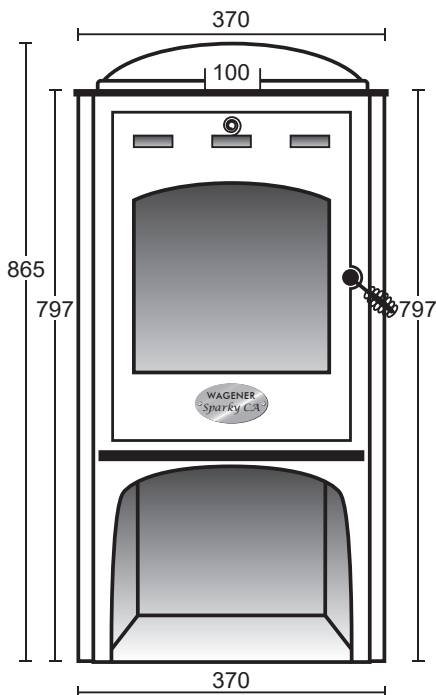
Combustible Wall



Requires Ash Hearth Floor Protector Only      Clean Air Approved

Minimum clearance to Combustible Surfaces	A	B	C	D	E	F	G	H
With stainless steel flue shield to unprotected wall	100	260	300	120	100	257	445	330
As above 12mm Promina board spaced 25mm off wall	40	76	Floor protection must extend under the stove and forward 300mm and 200mm either side of the door opening.		40	197	261	270
As above with sheet metal any type 0.5mm or thicker spaced 25mm off the wall.	30	78			30	187	263	260
Sheet metal as above 2 sheets spaced 12mmx12mm	30	52			30	187	237	258

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.

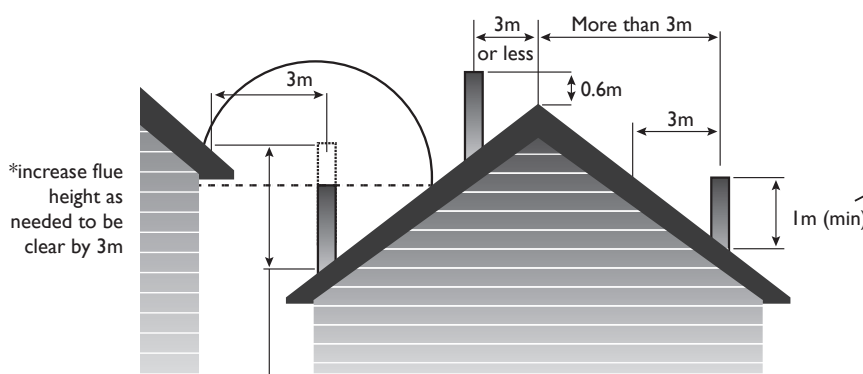


# Flue Installation

The Wagener Sparky CA 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 any lack of draw through the bend.

**The performance of Wagener Sparky CA depends more on the flue than on any other single component as it is the draw on the flue that drives the Sparky CA. We recommend 4.2 metres of flue.**

Diagram C



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. The flue pipe shall extend **not less than 4.6M ABOVE the top of the floor protector.** However a total minimum vertical height ABOVE the Wagener Sparky CA of 4.2 metres is recommended 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.

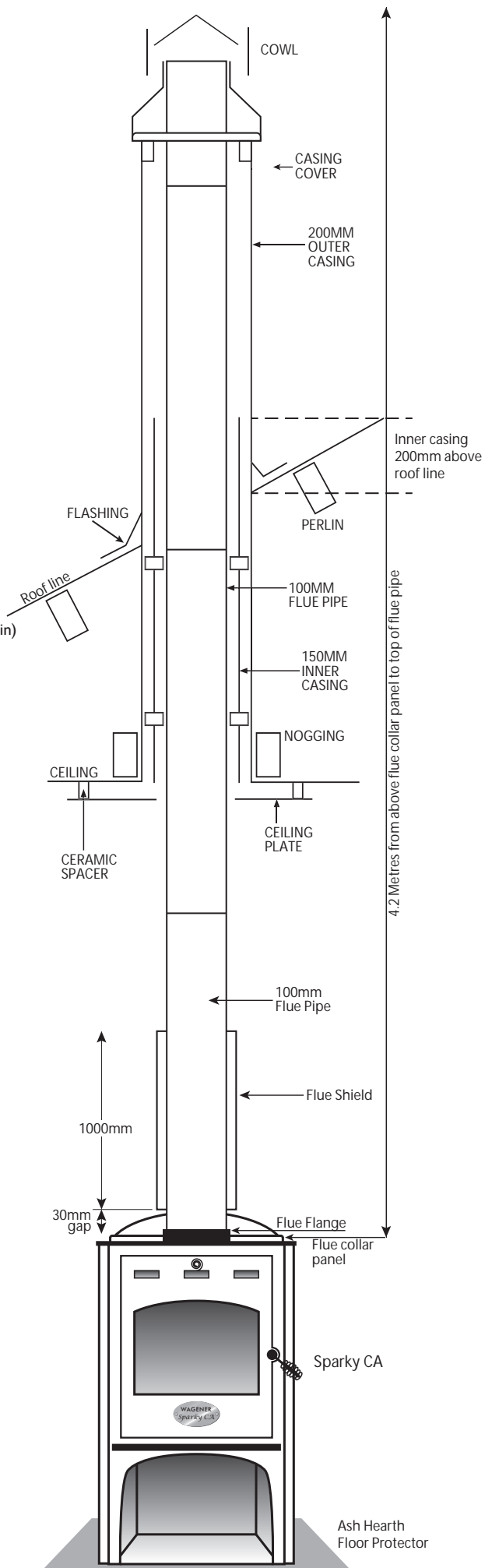
Each section should be secured to prevent separation using 3 stainless steel self tapping screws or pop rivets. Only flue systems which comply with the AS/NZS 2918-2001 should be used.

Please follow flue manufacturers instructions on page 5 and 6 “100mm Free Standing Woodfire Flue Kit Installation” Instructions’.

**NB. Bird netting is available**

**Note:** Wagener Sparky CA has been tested with a purpose designed 100/150/200 flue system with reduced sized flue shield and ceiling plate for improved performance. However a tested 100/200/250 system is compliant with the requirements of the standard but may cool the flue and affect the performance of Sparky CA.

Diagram B



# 100mm / 200mm Free Standing Woodfire Flue Kit Installation Instructions (see illustration page 4)

**WARNING: 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 AND THE APPROPRIATE REQUIREMENTS OF THE RELEVANT BUILDING CODE OR CODES. WOOD FIRE AND FLUE CLEARANCES FROM COMBUSTIBLE WALLS MUST BE IN ACCORDANCE WITH WOOD FIRE MANUFACTURER'S SPECIFICATIONS AND AS/NZS 2918:2001. THESE INSTALLATION INSTRUCTIONS ARE FOR TESTED APPLIANCES ONLY.**

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

CAUTION: 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 SHIELD AND CEILING PLATE 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)

1. Locate Wood Fire in its proposed position and mark a point on the ceiling that is directly above the centre of the Wood Fire's Flue Spigot. Check that the Wood Fire's location allows the OUTER CASING to clear all the structural roof timbers.
2. Cut a 200mm square hole in ceiling, directly above a cut hole in roof to accommodate OUTER CASING.
3. Fit timber nogs around ceiling i.e. Nogs form a 200mm square aperture that allows air to circulate freely over the OUTER CASING surface.
4. Position the OUTER CASING so that it is flush with the underneath of the ceiling and protrudes through the roof the required height. Note that AS/NZS 2918:2001 4.9.1(a) states, "the FLUE PIPE shall extend not less than 4.6m above the top of the floor protector." Refer to Diagram B. Fix into position using appropriate fastenings.
  - a) If the FLUE PIPE is within 3 metres of the ridge, the FLUE PIPE must protrude at least 600mm above the ridge of the roof.
  - b) If the distance from the ridge is more than 3 metres, the FLUE PIPE must protrude at least 1000mm above roof penetration.
  - c) The FLUE PIPE must be more than 3 metres from any nearby structure. (Refer to diagram C).

Additional FLUE PIPE, OUTER CASING and/or INNER CASING may have to be added to ensure the following.

- The correct minimum roof penetration height.
- Sufficient overall height to encase the FLUE PIPE which must extend a minimum of 4.6 metres from the floor protector. Refer to diagram B.

# 100mm / 200mm Free Standing Woodfire Flue Kit Installation Instructions (continued)

**Note** that the INNER CASING MUST extend 200mm above roof penetration.

**NB:** Do not secure the OUTER CASING SLIP EXTENSION onto the OUTER CASING, as a final adjustment will be required when fitting cowl assembly. See paragraph 11.

5. Fix an appropriate flashing around the OUTER CASING to seal onto the roofing material. Refer to the manufacturer's recommendations for correct fitting. **NB:** On iron roofs, fixings such as metal angle brackets (approximately 25mm x 25mm) can be fitted under the flashing to securely fix the roof to OUTER CASING.
6. Place CEILING PLATE over Wood Fire's Flue Spigot, ensuring the folded edges are facing the ceiling.
7. Position bottom length of FLUE PIPE (crimped end downwards) into Wood Fire Flue Spigot. Refer to the supplier of the Wood Fire and use the flue pipe sealant recommended.
8. Assemble FLUE PIPES together ensuring seams are straight, offsetting the seams will ensure a neat fit. FLUE PIPES **must** be assembled with crimped ends down (towards Wood Fire). Secure each joint with a minimum of three Monel Steel Rivets equally spaced around the joint. If using HI-THERM FLUE PIPE the protective wrapping should be left on the FLUE PIPE during installation.
9. From the roof lower FLUE PIPE through OUTER CASING into the bottom FLUE PIPE securing the 3 Monel rivets.
10. Check that the FLUE PIPE SPACING BRACKETS inside the INNER CASING are correctly positioned and then from the roof slide the INNER CASING into the OUTER CASING until the brackets rest on to the internal swage ring of the OUTER CASING, this will ensure the INNER CASING is the correct 12mm above ceiling level.  
Check the INNER CASING when correctly positioned extends a minimum of 200mm above the roof penetration.
11. Before securing the OUTER CASING SLIP EXTENSION to the OUTER CASING with 3 rivets, ensure the FLUE PIPE is either flush or extends above the top of the OUTER CASING SLIP EXTENSION by no more than 15mm. Adjust SLIP EXTENSION to obtain this measurement.
12. Push CASING COVER (with spigot inside FLUE PIPE) down onto the OUTER CASING SLIP EXTENSION. The 3 locating brackets with holes must be on the outside of the OUTER CASING SLIP EXTENSION and are secured using 3 rivets.
13. Fit COWL but do not secure, as removal for flue cleaning will be necessary. Deform or ovalise the stub of the COWL to ensure it is a tight friction fit.
14. Fasten CEILING PLATE to ceiling using screws and ceramic spacers required. Ensure an even air gap around FLUE PIPE when fixing. Remove protective plastic from CEILING PLATE **N.B** 12mm air gap between ceiling plate and ceiling must be maintained.
15. Fit the flue shield to the flue pipe as per fitting instructions supplied with the flue shield kit.
16. Please leave all instructions with the owner.

# Part 2: Operation & Maintenance Instructions for WAGENER SPARKY CA - Woodfire

## Message to the Owner

Thank you for purchasing a New Zealand designed and made Wagener Stove.

With care and common sense your Wagener Sparky CA 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 TO THE ENVIRONMENT AND DETRIMENTAL TO YOUR APPLIANCE.**

## Further Cautions & Over Firing

Never run Sparky CA 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. Appliance run with door ajar
3. Faulty door seals
4. Full load of very dry, small wood
5. Dirty flue catches fire

### REMEDY

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

Sparky CA is HOT while in operation and caution is required as 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 CA - Woodfire

**Dry, seasoned, softwood at less than 25% moisture content should be used at all times**

Try to buy wood well in advance and store so that the air can circulate through the pile to assist drying. Wet, unseasoned wood can cause creosote problems, especially if it is burned slowly. Care should be taken to ensure that the fire is actually burning and not just smouldering which over a period of time can create creosote build-up and flue blockages.

**DO NOT** burn driftwood, chipboards, painted, stained or treated timbers as they will all damage your Sparky and flue and void your warranty. Coal must not be used in this fire.

**NOTE:** The heat output level of Sparky CA is controlled not only by the air control but also by the type and quality of fuel in the firebox. **For best results the fuel should be loaded front to back.**

## First Burn on a New Appliance or Repainted Appliance

On INITIAL LIGHTING, the high temperature paint used on Sparky CA will give off smoke and odour for a short period. This is a temporary condition. **Please see additional information** enclosed in your installation pack on the paint curing process.

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. (Alternatively bricks can be removed and dried in the sun or hot water cupboard)

## Start Up

1. Open the air control to the fully open position by sliding the wire air control knob above the door hard to the right so that holes are fully open.
2. Open the firebox door. Place crumpled newspaper in the base of the firebox. Stack kindling around the newspaper like an Indian Tepee and light the newspaper (or firelighters if using) leaving the door slightly ajar until the kindling is well alight. Then add 2 or 3 small logs of wood and close the door. Do not adjust the air control.
3. To add larger logs or to refuel always ensure that the air control is on full supply and open the door slowly. Add logs ensuring air spaces between to allow oxygen for burning and again only readjust the air controls to the desired setting when the new fuel is well alight and 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. Note: flue length, outside wind conditions and the like may affect the performance of the fire.
5. Please Note: Over Firing will damage your stove & flue system and will void your warranty. Please refer to page 6 - 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.

Always use pots, pans and appropriate cooking implements. A suitable raised trivet on the stove top will provide slower cooking options. Avoid spills which can be detrimental to the paint finish.

## Extended Burn Times

Ensure that your Air Control is fully open and that you have a good base of hot embers. Add a good load of larger pieces of wood. Allow to burn for 10-20 minutes before moving the Air Control to the left.

Sparky CA will burn away for longer periods on low.

**At the end of an extended burn** move air control right to full air supply. 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 smouldering or 'losing' the fire. Proceed with fire as before.



# MAINTENANCE AND CLEANING

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

The outside of Sparky CA may be cleaned with a soft dry rag. Sparky CA is coated with high temperature paint and can be recoated using a spray can of Stovebright high temperature paint. (Refer to touch up instructions enclosed in your installation pack)

## Ash Removal

Over a period of time ash will build up in Sparky CA requiring removal. Ash build up will depend upon the quality and quantity of fuel used. Always leave a bed of ashes 10-15mm deep in the base of the fire box.

Empty ashes from the fire box into a non-combustible container using a suitable hearth shovel.

Place container outdoors immediately to a location clear of any combustible materials. Take care as the ash can retain heat for many days and become a fire hazard. When cold the ashes can be used in your garden.

## Door Glass

Under normal operating conditions, using well-seasoned fuel, the door glass in Sparky CA should remain relatively clean. A good, hot fire will burn away most of the black deposits collecting on the door glass during slower burns. If the glass becomes dirty it can be cleaned by dipping damp paper towels or newspaper 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 CA 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

Door seals should be checked and adjusted to provide a perfect seal at all times. Excess air entering the fire box past a faulty or worn seal will make it impossible to achieve an extended burn time and may also result in over firing Sparky CA 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. Worn 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 and baffles.

## Baffle, Brick and Air Bar Fitting & Removal

Ensure Sparky CA is cold. Remove the fire box door for ease of access. (Lift up off hinges and place carefully to one side) Clear ash away from base of bricks. Remove the "R" pin from each air bar, slide bar to the other side and remove front and then rear bar. Remove front brick below the firebox opening. Remove side bricks by sliding forward 30mm and tilting 45 degrees to remove through door opening. Slide rear bricks towards the sides and angle forward to clear retainer on rear air tower. With the flat of your hand lift up front baffle and slide it forward until rear edge of the baffle can drop down 90 degrees. Lift the now vertical baffle up and move it back to clear the locating mounts. Rotate the baffle while in the firebox and remove through door opening end first and on a diagonal angle. To remove rear baffle again with flat of your hand lift the baffle up and slide it forward. Once clear of mounting points lower it down into the firebox rotate and remove end first. To reassemble follow process in reverse. It is essential that baffles are replaced in the correct positions.

## 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, baffles and seals. This should be done annually. However, if you are cleaning the flue yourself first allow the fire to go out and Sparky CA 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.