# How to use a multi fuel stove

**Important!!**

- When lighting the stove for the first time only a small fire should be lit.
- **Too hot a fire will result in the paint emitting smoke** - not necessarily bad but unpleasant.
- **The paint may also become soft at this time. Avoid all contact as the finish is easily damaged!**
- **the rope seal of the door may also stick to the body of the stove - leave the door slightly open on first firing!!**
- All the materials must be given time to adapt to the effects of heat.
- The heatproof paint reaches its maximum thermal stability after a few hours.
- It is recommended that doors or windows be opened the first time the stove is fired.
- Vibration caused by transport may loosen nuts/bolts securing glass, door handles etc., so please check these and tighten before use. Do not overtighten brackets securing the glass, & make sure seals are in place beforehand.
- Some models have a spring-loaded door, which is a safety feature for the German market. This can be slackened off.
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- Before lighting check that the removable baffle, which you will find inside the combustion chamber at the top, is pushed towards the back of the stove, thus forcing the flames to the front. There is

usually a small piece of wood holding these in place, visible from the flue exit. It can be left in situ and will burn off during first use.

- Check also that other internal components are in position. Remove all supplementary tools from the ash pan, as well as warming oven stones/bricks.
- Primary air passes through the bottom vent, through the grate and into the combustion chamber. It is useful for igniting the fire and for burning solid fuels such as coal.

Wood burns most efficiently when the air for combustion is supplied from above the fire bed rather than below. The oxygen supplied above the fire bed by the secondary air vents above the door ensures the combustion of gases given off by the wood as it heats. This heats the appliance instead of being wasted up the chimney, or condensing and forming tarry deposits inside the stove, the flue pipe or on the door glass. As the draw on the fire is determined by the height of the chimney, the correct control of the secondary air will be achieved by trial and error.

**Lighting the stove**

1. Open the top and bottom air controls fully.
2. Place rolled up and scrunched up newspaper at the back of the stove. Put small tinder on top of the newspaper and then a few slightly larger pieces of wood on top of this. Light the newspaper and close the door.
3. Let the fire burn until all the pieces of wood are alight and burning. Then more and larger pieces of wood/logs can be added.
4. When burning wood: Once the fire is established the bottom air control can be closed so that all the air for the fire comes via the top air control. The burning rate of the fire can now be controlled by adjusting the top air control and by regulating the amount of wood added. The bottom air control should normally remain closed once the stove is running. If the fire has been allowed to die too low then the bottom air control can be opened to allow air to the base of the fire in an attempt to revive it. If the ambient temperature is above 14 C, then there may be insufficient

draught, and use of the primary air control will be necessary.
5. When burning coal and other solid fuels: use of the primary air is necessary.
6. Do not run the stove with the door open.
7. The controls and handle become hot when the stove is in use and so the glove should be used.
8. Never use the stove without the firebricks in place - they protect the steel from oxidation.

Please note that the glass will darken initially but will eventually clear under correct operation with the correct fuel. Wood that is not sufficiently dried and seasoned will always darken the glass.

The first stage of the fire, just after lighting, is usually the smokiest. During this stage, ensure both air inlets of the stove are fully open to get a hot flame. The extra heat “primes” the chimney to produce a strong draft, and helps keep the flue clean by loosening creosote that might have been deposited by the previous fire. The hot initial burn also drives moisture out of the firewood and gives an ignition source for the smoke that is released from the wood.

• Adding small amounts of fuel gradually will help maintain a steady temperature and burning rate so that the stove burns efficiently and cleanly. Adding a large amount of fuel all at once will dramatically reduce the temperature inside the stove. After adding a large piece of wood/log it is a good idea to increase the top air opening slightly more until the new fuel begins to burn and the stove returns to temperature.
• Adjusting the air controls gradually will also help maintain a steady combustion rate.
• Do not run the stove with the top air control fully closed. The top air control supplies air for the ‘air wash’ system. The further open the top air control the more effective the air wash system.
• Use a piece of newspaper to wipe the inside of the window glass before lighting the stove each time to prevent the gradual build up of deposits.
• Small, hot fires are more efficient than large smouldering fires. As wood

heats up, it releases gasses, or smoke. If the fire is hot enough, these gasses ignite, produce a flame and create heat. The turbulence in the flames creates good mixing between the combustion air and the gasses. In contrast, the smoke from a smouldering fire is heat energy that goes up the chimney unused, and either sticks to the flue as creosote or pollutes the atmosphere. To gain the most heat from each load of firewood, the wood should be flaming throughout the burn cycle until it is reduced to ash.

• When refuelling, place wood towards the back of the stove where it will burn hotter and more efficiently. Try to place logs length ways so that any spitting from the end grain does not go onto the glass window.

• To get the best results from your stove it is recommended that a wood stove thermometer be fitted to the flue pipe just above the stove. Most thermometers are magnetic and if attached to the single wall flue pipe just above your stove will give a good indication of the flue gas temperatures.

115 °C - 245°C (240°F – 475°F)
The flue gases should be in this temperature band for the safest, most efficient and most economical operation of your stove.

Below 115°C (240°F)
This is below the condensation point of wood gases and may cause the build up of tar in the chimney, darken the stove glass and result in the inefficient burning of fuel.

Above 245 °C (475°F)
Too hot. Heat will be wasted up the chimney. Excess heat may damage the stove (voiding the warranty) or may ignite an existing accumulation of tar, resulting in a chimney fire.

**FIRE PRECAUTIONS AND SAFETY**

• Over firing of the stove (running at too high a power) is dangerous and voids the warranty.

• The door should always be firmly closed even when out of use.

• Install according to the installation document and Building regulations.
• Flammable liquids must not be used to start a fire.
• Do not place objects that may cause explosions in the stove. E.g. empty lighters, batteries.
• Cleaning and maintenance should only be carried out after the stove has cooled down.
• Ash should only be disposed of after it has cooled down.
• Do not put any combustible objects on or near the stove.
• Do not use or spill cold liquids on hot glass!

**CLEANING**

• Should only be carried out when the stove is cold.
• Never use spirits to clean the stove, as this can remove the paint.
• Never use sharp objects or abrasive materials when cleaning.
• The stove may be vacuum cleaned externally, or brushed down with a soft dry brush.
• The flue pipe and chimney should be swept at least once a year, as should the inside of the stove.
• The glass should be cleaned after cooling down by washing with a soap solution, and dried afterwards.

**TROUBLESHOOTING**

Blackened glass
•The wood is too damp. Only use wood stored for at least 12 months under cover and with a moisture level not exceeding 18% RH.
• Insufficient intake of air from the top air control. Open the top air control further. The air shield system is more efficient the more air is allowed to run over the glass panel.
• The stove is run at too low a temperature.

Smoke in the room when opening door
• Try moving the baffle towards the front of the stove (figure 1) so that the flue gasses exit at the rear of the stove.
• Never open the door when there are high flames on the wood.

• Poor chimney performance - consult chimney sweep.
• Check the position of any fitted flue damper or stabiliser and make sure it is in the open position.

Uncontrollable combustion
• Damaged door seal. Fit new seal.
• If there is an excessive chimney draft - fit a draft stabiliser in the flue pipe - consult a chimney sweep.

Excessive smoke and no draught when igniting the fire
• Flue pipes and/or chimney not sealed
• Flue of insufficient length

Room cannot be heated effectively
• Stove with higher output required
• Poor quality fuel
• Ash blocking the grate
• Insufficient air provided

Stove radiates too much heat
• Too much air provided
• Excessive draw from the chimney (fit a draught regulator)

Grate damaged or slag formed
• Stove is repeatedly overloaded
• Inappropriate fuel is being used
• Too much primary air provided
• Excessive chimney draw