

# OPERATING AND MAINTAINING A WOODHEATER



THE FIREWOOD ASSOCIATION  
OF AUSTRALIA INC.

## Building a wood fire

For any fire to start and keep going three things are needed, fuel, oxygen and heat. In wood fires the fuel is provided by the wood, the oxygen comes from the air, and the initial heat comes from burning paper or a fire lighter. In a going fire the heat is provided by the already burning wood. Without fuel, heat and oxygen the fire will go out. When the important role of oxygen is understood, it is easy to see why you need plenty of air space around each piece of kindling when setting up the fire.

Kindling catches fire easily because it has a large surface area and small mass, which allows it to reach combustion temperature quickly. The surface of a large piece of wood will not catch fire until it has been brought up to combustion temperature by the heat of an established fire. This is why you need to start a fire with kindling and gradually increase the size of the wood until a good bed of hot coals has been established. These coals will have sufficient heat to bring large pieces of wood up to combustion temperature quickly.

Whether your heater is new or old, an open fireplace or a combustion heater, you can get more efficient burning when you:

- Make sure your wood is dry – wet or green wood is hard to light, burns poorly and the evaporating water cools the fire which creates smoke.
- Light the fire using sufficient kindling to establish a hot fire quickly.
- Use small split wood to get the fire well established.
- Run combustion heaters on high burn (air vent fully open) for the first 20 minutes of operation, and as well as after every addition of wood.
- Allow air to circulate between the logs by not overfilling the heater.
- Use larger logs for slower burning once the fire is well established.
- Don't block the incoming air vent with logs or ash.
- If the fire has burnt down to just a few coals, re-kindle it quickly with small wood before adding larger pieces.

## Maintaining a wood heater

Even in correctly operated wood heaters and fireplaces, some of the combustion gases will condense on the inside of the flue or chimney as a black tar-like substance called creosote.

If this substance is allowed to build up it will restrict the air flow in the heater or fireplace, reducing its efficiency. Eventually a build up of creosote can completely block the flue, making the fire impossible to operate. One sign of a blocked flue is smoke coming into the room when you open the heater door. Creosote appearing on the glass door is another indication that your heater is not working properly. Because creosote is flammable, if the chimney or flue gets hot enough the creosote can catch alight, causing a dangerous chimney fire.

It is strongly recommended that you remove creosote build up regularly, at most every two years. This is best done by engaging a chimney sweep who will have all of the right equipment. If you decide to tackle this task yourself you need to be aware of the risks of working at a height and should use appropriate access and fall protection equipment.

If you have a slow combustion heater you need to check the door seal for wear or damage, and replace it when necessary. These heaters rely on a good airtight seal around the door to work properly. Cracked glass in doors should be replaced as soon as possible.

Slow combustion heaters have a baffle between the fire and the flue. Soot build up on this baffle reduces and will eventually totally block air flow to the flue. Removing soot from the baffle is an essential part of regular heater maintenance.

When the fire is out and the ash bed and baffle have been cleaned you can inspect the firebox, baffle plate and the sides of the heater for signs of deterioration. Some rust and flaking of metal is to be expected but this should not be so great that it might lead to a hole forming.

Most heater retailers will be able to provide spares or recommend someone who can repair your wood heater. With proper maintenance certified wood heaters will last for many years.

Look for the distinctive FAA membership logo which is displayed by FAA members or call **1300 131 481** for your nearest member.

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