

# ENVIRONMENTAL HEALTH PROFESSIONALS AUSTRALIA FORUM

Presentation by Australian Home Heating Association – Mr Ashley Stride



**AUSTRALIAN  
HOME HEATING  
ASSOCIATION INC.**

## What is Wood heating?

- What are the types of wood heaters?
- How do these fireplaces heat?
- What is controlled combustion?



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## ***Types of Woodheating Appliances***

### **Radiant Heaters**



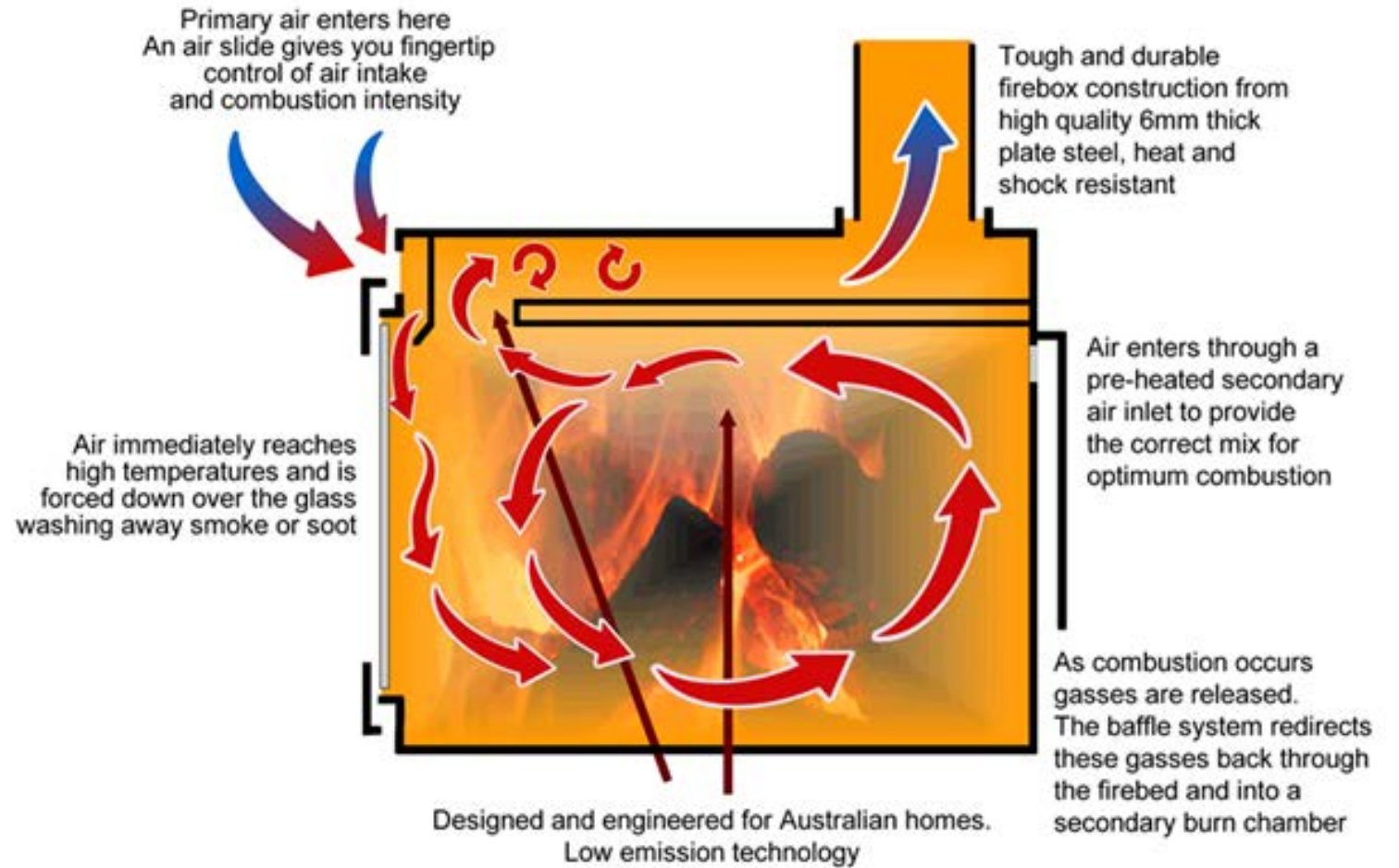
Radiant heaters transfer two-thirds of their heat by radiation and about one-third by convection. These units are generally more efficient, relying on creating a heat bank to transfer heat.

### **Convection Heaters**



These heaters have a ventilated casing around the firebox. This can be fabricated of metal or tile and has an opening at the top and bottom. They normally rely on a convection fan to heat efficiently and can reach peak power quicker

## Controlled Combustion Heaters



# PRODUCT STANDARDS REQUIREMENTS

- What standards must wood heating appliances meet?
- How have the standards changed to make units more environmentally friendly?
- What is the certification procedure?
- Who polices manufactures and importers?

### **AS/NZS 4012 – Output and Efficiency**

When a power or an efficiency figure is quoted for a heater, you know you can rely on it if the heater has been tested to this standard by an independent laboratory. It is a full test on high, medium and low using a standard method that is the same of all heaters. This makes comparisons between heaters meaningful. There was no standard for this figure pre 2016, this has now changed and all wood heaters must meet or exceed 55%. As of August 2019, this figure lifts to 60%

### **AS/NZS 4013 - Emissions**

The purpose of this standard is to regulate the maximum allowable emission level of particulates (ie smoke). Pre 2016, the standard was set at 4 grams. All heaters must now meet the new standard of 2.5 grams. From August 2019, this figure changes again to 1.5 grams. Just like AS/NZS 4012, there is a test that is the same for all heaters that determines what the emissions are. A certificate of compliance is then issued.

### Understanding Australian Hardwood

- One of the most dense solid fuels used in the world
- Different combustion rates to softer hardwoods or softwoods
- All wood heaters in Australia must be tested to Australian Hardwood

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### **AS/NZS 2918 – Installation**

This is a safety standard that tells you how a heater must be installed. A heater that is tested to this standard will have a conformance certificate showing minimum distances to combustible material. This standard covers the clearance, hearth protection and flue system used on the unit

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## Compliance with Standards

The Australian Home Heating Association issues a Certificate of Compliance to manufacturers/distributors who have had their units tested to the Australian Standards. These units are listed on:

[www.certifiedwoodheaters.com.au](http://www.certifiedwoodheaters.com.au)

**The Australian Home Heating Association has no authority to enforce these Standards. That is solely the responsibility of government.**



# OPERATION OF A WOOD HEATER

- Using correct fuel
- Lighting procedure
- Use of air controls
- Use of convection fans



## Fuel for your wood heater

- Use split and seasoned wood (12 months ideally)
- Use a moisture meter to ensure content is between 15-20%
- Only use softwood for kindling to start your fire
- Do not use green wood
- Do not use railway sleepers
- Do not use painted timber or treated timber





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# Lighting procedure

*A well performing fire starts with correct starting procedure*





# COMMON TROUBLE SHOOTING ISSUES

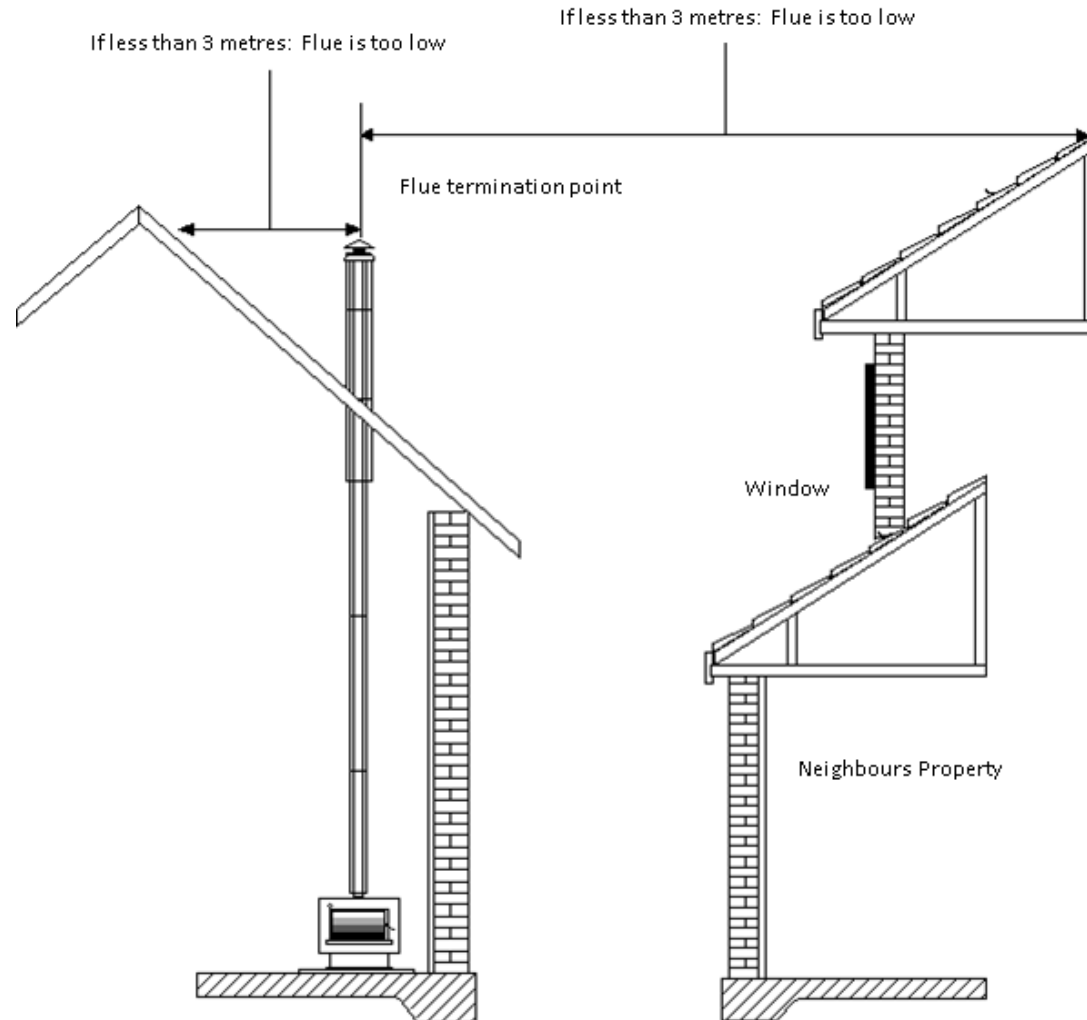
- Fuel Quality (Moisture content)
- Incorrect use of air controls on unit
- Air balance issue
- Poor maintenance
- Poor installation (flue system)





## Common Installation Problems


Some of the most common problems occur when adjoining properties are very close or if the flue terminates too close to the roof of the house in which the heater has been installed





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The AHHA can work with your local council to provide on site advise and resolution through our extensive membership base.



Thank you – Questions?