



Home fire safety fact sheet

Roof Spaces

Fire Dangers Associated With The Use Of Heat Generating Devices In Roof Spaces

Roof spaces represent a significant fire danger in homes, especially when combined with the use of heat generating and electrical devices such as:

- downlights
- hot water services
- transformers
- air conditioning units
- exhaust fans
- bathroom '3-in-1' exhaust/heater/light units
- roof gas heaters.

All wiring and electrical devices represent a fire risk through the generation of heat, and in roof spaces the risk is increased when insulation and debris from vermin and birds are added to the equation.

When roof spaces are used as storage areas for surplus furniture, papers and other combustible material the fire risk also increases.

The MFS stresses that in roof spaces any heat generating devices must have an appropriate clearance around them.

The area must be clear of roof structures, insulating material or combustible material. Particular attention needs to be applied if loose fill (or 'blow-in') insulation has been installed in roof cavities.

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Default Clearances Of Electrical Equipment From Ceiling Insulation

NB: The following table has been provided by The Office of the Technical Regulator (OTR). It is current as at June 2019. Householders should check with the OTR (https://www.sa.gov.au/data/assets/pdf_file/0007/19429/Installation-of-ceiling-insulation-assessment-form-150113.pdf) or AS 3000 for any future changes.

Guidelines to maintain clearances – refer to appropriate Australian Standards for full requirements

Items in ceiling space	Default minimum clearances ¹		Remarks
Recessed luminaires (including mains voltage and extra low voltage down lights)	50mm side clearance to bulk thermal insulation ² 50 mm clearance to auxillary equipment (transformer for example)	200mm clearance above luminaire 200 mm side clearance to combustible building elements	As per AS/NZS3000:2007 ³
Transformers and other electrical devices	50mm for down light transformers	200mm for other electrical devices	Includes heat lamps.
Wiring 1986–1999	OK to install if the insulation depth is less than or equal to 150mm	Do not install if the insulation depth is greater than 150mm	Consult a licensed electrician if the insulation depth is greater than 150mm
Wiring pre–1986	Do not install		Consult a licensed electrician
Exhaust fans	25mm		Also install a fire-resistant separator with loose-fill insulation
Flues and chimneys	25mm	50mm for loose-fill insulation	Also install a fire-resistant separator with loose-fill insulation
Gas water heaters and space heaters and other gas appliances	300mm		Also install a fire-resistant separator with loose-fill insulation

If any doubt exists, the MFS recommends that you have the area inspected by a suitably qualified tradesperson.

It is also very important to maintain and inspect the roof space annually to ensure that vermin or birds have not introduced combustible material for nests, or moved insulation into the clearance area around heat generating devices.

Fire detection is now available for domestic roof spaces using specialised heat detectors connected into the smoke alarm system within the house. (Standard smoke and heat alarms can not be used in a roof space with its very high temperatures and dusty environment.)