

SAFETY ALERT – SAFE USE OF POWER BOARDS



Purpose

This safety alert informs motor sport stakeholders including, officials, competitors, pit/service crews and contractors about the dangers of misusing power boards whether they are being used at event headquarters, workshops, portable pit buildings, catering areas or around the home.

Power boards are very useful and are generally a safe way of providing extra outlets especially for temporary or portable equipment.

This safety alert also provides basic safety guidelines to help assist in the safe use of power boards.

Background

With the proliferation of multi-powered outlet boards in the home, the Office of the Chief Electrical Inspector (OCEI) warns about the danger of misusing power boards. Investigations of incidents involving power boards by the OCEI and fire authorities reveal the misuse of power boards is prevalent in homes. The photo above demonstrates what can happen.

Statistics from the NSW Fire Brigade show that over 350 residential house fires are started by electrical faults in NSW.

Legislation in each state of Australia requires that electrical multiple-outlet power boards be approved by an Electrical Regulatory Authority before a manufacturer, importer or retailer is able to supply or offer to supply power boards to the general public.

The current Australian Standard requires that all power boards incorporate minimum safety requirements, including a circuit breaker to prevent overloading if fitted with three or more outlets. It should be noted that some older models might not incorporate a circuit breaker.

Despite the inherent overload protection found in power boards, when using multiple cascaded power boards there is no substitute for permanently installed socket outlets. Because of their portability and their upward facing sockets, power boards may be more prone to damage, contamination and wear and tear than fixed socket outlets.

Recommendations for owners and users of power boards include:

- Avoid using double adaptors with power boards or plugging one power board into another;
- Regularly check that the power board (s) show no obvious signs of damage and that the socket contact firmly grips the inserted plug (i.e. check that there is no sloppiness when inserting a plug);
- Avoid roughly forcing plugs into sockets as this can break bits of plastic off the internal supports and compromise proper connections;
- Replace defected power boards - they are a very low cost item to replace;
- Place power boards on their side to prevent dust build up in unused points;
- Ensure that adequate ventilation is provided for power boards;
- Regularly inspect power boards and leads for signs of damage— consider having regular 'testing and tagging' procedures in place;
- Avoid using power boards in wet areas or areas where there is likely to be water present and do not continue to use a power board if it has been subjected to moisture or water or has been damaged in any way;
- Avoid using power boards outdoors or in a dusty or polluted environment such as workshops or building sites; and
- Use power boards with built in safety switches /circuit breakers.

Disclaimer

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In summary, keep an eye out for the signs of broken or damaged power boards and replace if necessary and where available utilise installed socket outlets (power points).

Finally, make sure you are using a power board with a built in safety switch/circuit breaker.

For more information please refer to the following standards:

AS/NZS 3820-Essential safety requirements for low voltage electrical equipment

AS/NZS3105 -Approval and test specification - Electrical portable outlet devices

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