

AS/NZS 3000:2018 - Wiring Rules Overview of Changes



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The Australian Standard for Electrical Installations, AS/NZS 3000, known as the "Wiring Rules", has undergone a significant update. Following on from our previous alert to industry (late June) this document provides an overview of changes that may have relevance within the caravan industry. The new 2018 edition of the standard was developed by Standards Australia based on:

- new technology, new equipment and improved installation techniques;
- industry feedback regarding readability and compliance;
- identification and clarification of normative (mandatory) requirements and informative guidance material throughout the document; and
- experience gained in the application of the previous edition as expressed to Standards Australia and Standards New Zealand.

The 2018 edition of the standard supersedes the previous version (AS/NZS 3000:2007) from 26 June 2018 and is applied and enforced through legislative measures made in each state and territory of Australia and in New Zealand.

The requirements of the standard will apply to all new installations and alterations. A 6-month transition period has been recommended in the standard and confirmed by some state jurisdictions, with enforcement to begin from 1 January 2019. However, compliance with the new 2018 version of the standard during the transition period will be encouraged by Electrical Regulators.

Some significant changes to the standard which may impact the Caravan Industry are summarised below. This is not an exhaustive list and is provided as general guidance and information based on our understanding of the electrical requirements.

It is strongly recommended that industry businesses make their own investigations and explore the changes to AS/NZS 3000:2018 with regard to the Recreational Vehicles they are producing. It is also important to ensure that the relevant personnel (e.g. Electrical Contractors, Vehicle Designers etc.) within your business are up-to-date with these changes.

1. Exclusion of Electrical Equipment around Cookers

- A new exclusion area has been introduced that prevents the fitment of electrical equipment within an area 150mm each side of a cooking appliance up to the height of the range hood or overhead cupboard. (Figure 4.17 of the standard provides a diagram).

This will be particularly significant for placement of switches and/or socket-outlets in Recreational Vehicles and any other small kitchen areas.

2. Exclusion of Electrical Equipment around Water Containers

(e.g. kitchen sinks, bathroom basins, laundry troughs etc.)

- Extended exclusion zones are required for any container greater than 40L in volume (this was previously 45L).
- A new requirement that the same extended exclusion zones apply if a flexible hose outlet is fitted, regardless of the water container's volume.

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3. Switchboard Clearance

- The current clearance requirement of 0.6m around a main switchboard is retained for single domestic installations (while a new, larger spacing of 1.0m is required for larger installations).
- This domestic installation definition will be relevant to the main circuit breaker in a recreational vehicle.

Note that the clarification of a recreational vehicle as a single domestic installation is expected to be further strengthened in an update of AS/NZS 3001 Electrical Installations - Transportable Structures and Vehicles that is commencing shortly.

4. Definitions

Some definitions within the standard have been updated providing further clarity around some key terms:

- *Accessible / Readily Accessible* – relevant to location of power points, switches, switchboards
- *Alteration / Repair* – An alteration requires the latest standard to be applied, while a repair allows the standards in force at the time of original installation to be maintained. The clarification assists in determining when to apply the new standards - for example, the difference between replacing a faulty socket outlet (repair) or adding a socket outlet to a circuit (alteration).

5. Residual Current Device (RCD) Protection

- Requirements added for RCD protected circuits in domestic installations
- RCD requirements for alterations and repairs have been clarified.

6. Power Socket Outlets

- New clause prohibiting connections for RV, data, radio, phone or similar devices to be combined in a low-voltage (e.g. 240V) socket outlet or faceplate.

7. Electrical Equipment Zones around Showers

- New specifications provided for zones applicable around ceiling-mounted shower outlets.

Note that this is in addition to the previous specifications for wall-mounted shower heads.

8. Building Insulation

Changes detailed within the standard for electrical components and/or wiring installed in areas that also contain building insulation.

Note: these changes are technical installation matters. Please ensure that your electrical contractor and all relevant personnel are up-to-date with the latest standards for any new work undertaken in these insulated areas.

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Again, it is strongly recommended that industry businesses make their own investigations and explore the changes to AS/NZS 3000:2018 with regard to the Recreational Vehicles they are producing and ensure that the relevant personnel (e.g. Electrical Contractors, Vehicle Designers etc.) within your business are up-to-date with these changes.

For those industry Businesses already accessing Standards through Caravan Industry Association of Australia and the i2i Platform, AS/NZS 3000:2018 is available to view and download.

Our industry leading partnership with SAI Global enables industry businesses to gain access (for a substantially subsidised price) to more than 9000 Australian Standards (both current and historical) through the i2i Platform. Considering that the individual purchase price of a large standard such as AS/NZS 3000:2108 can cost around \$400, this may be a cost-effective option for your business. For more information on this subscription click the button below and submit a register of interest.

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