

ELECTRICAL REGULATORY AUTHORITIES COUNCIL

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Alterations and RCD's

AS/NZS 3000:2018 A2 Electrical installations
Additional protection by residual current devices
Clause 2.6.3.2.5

This document has been produced in consultation with, and is endorsed by, electrical safety regulators in all Australian States and Territories, and in New Zealand, via their representatives on the Electrical Regulatory Authorities Council (ERAC).

The purpose of this document is to provide a consistent approach across Australia and New Zealand to the interpretation and implementation of *Clause 2.6.3.2.5 Alterations to installations and replacement of switchboards — Australia only*.

Feedback from industry has indicated that there may be a misinterpretation of the intent of this clause. As ERAC was instrumental in the motivation of introducing RCD into existing installations, it is essential to provide additional clarity.

Clause 2.6.3.2.5(a)
Alterations to installations and replacement of switchboards — Australia only.

Additional protection by RCDs shall be provided in existing electrical installations where alterations or a switchboard replacement is completed.

The following provisions shall apply:

(a) Alterations
For alterations to existing installations, RCD protection shall be provided as required by Clauses 2.6.3.2.2, 2.6.3.2.3 or 2.6.3.2.4 as applicable to the type of installation.

For existing domestic and residential installations, RCDs installed for the protection of additional socket-outlets, electrical equipment or lighting points shall be installed at the origin of the final sub-circuit.

Note: Clause 2.6.3.2.6 excludes applications that are deemed to be repairs to an existing installation.

Q: In a domestic installation if one final sub-circuit is altered in anyway, do all of the other final sub-circuit protection need to be changed to RCD?

A: No, clause 2.6.3.2.5 of AS/NZS 3000:2018 A2 only requires the altered circuits to have a RCD/RCBO installed.

Example 1*: An existing final sub-circuit for socket outlets is extended and an additional socket outlet is installed. Only that circuit that is altered is required to have a RCD fitted.*

Example 2*: A switchboard is replaced for any reason. All applicable final sub-circuits originating from that switchboard are required to have a RCD protection.*

Example 3: *An existing socket outlet, light fitting or single item of electrical equipment is replaced with an equivalent item in exactly the same location, without alteration to the sub circuit, there is no requirement to install a RCD as this replacement is considered a repair. This includes the replacement of a single socket outlet with a multiple socket outlet assembly.*

Although it is always recommended that owners be advised of the benefits of RCD protection, an alteration does not necessitate the whole electrical installation to be upgraded to include RCD protection on all existing final sub-circuits.

For further enquiries or clarification relating to the contents of this document, please contact the relevant authority in your jurisdiction.

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