

RCDs and RCBOs testing requirements

Industry guidance, December 2021



About this guidance

Residual current devices (RCDs) and residual current breakers with overcurrent protection (RCBOs) provide protection from electrical shock. Therefore it is important they are tested to verify they have been installed correctly and are operating correctly.

This document gives guidance to licensed electrical workers (LEWs) and licensed electrical inspectors (LEIs) on how to meet the testing requirements in AS/NZS 3000 *Electrical installations* (Wiring Rules) for RCDs and RCBOs that are part of new electrical installations which are yet to be connected to an electricity supply.

It does not replace the Wiring Rules and responsible persons should ensure they understand their legal duties.

Background

The *Electricity Safety (General) Regulations 2019* require LEWs and LEIs to test electrical installation work in accordance with the Wiring Rules before certifying/signing a certificate of electrical safety (COES) under the *Electricity Safety Act 1998* (Vic).

Electricity distribution companies also require a copy of the relevant COES to be submitted before connecting electricity supply to a new electrical installation.

Amendment 2 to the Wiring Rules, which took effect on 1 November 2021, requires RCDs and RCBOs to be tested to verify they have been installed correctly and are operating correctly.

This means LEWs and LEIs are required to test RCDs and RCBOs before certifying/signing a COES and, in the case of a new electrical installation, this must occur before an electricity distribution company connects electricity supply.

As the functional testing of RCDs and RCBOs requires an electricity supply, this presents some challenges for new electrical installations such as builder's construction supplies at greenfield sites.

LEWs and LEIs can use a portable motor generator or battery inverter to provide a 230 volt electricity supply to enable testing of the RCDs and RCBOs. However, the use of this equipment raises some safety concerns such as the potential for electric shock.

Guidance

Energy Safe Victoria (ESV) acknowledges the challenges for LEWs and LEIs to meet these testing requirements for RCDs and RCBOs that are part of new electrical installations yet to be connected to an electricity supply.

Therefore, until further notice, ESV intends to exercise its regulatory discretion and not enforce the requirement to test RCDs and RCBOs before issuing/certifying the COES in circumstances where electrical installations are yet to be connected to an electricity supply provided the conditions outlined below are met.

ESV will allow a Responsible Person (e.g. registered electrical contractor, supervising licensed electrical installation worker or licensed electrical installation worker) that is certifying/signing a COES in these circumstances to choose from the following two options to meet the testing requirements:

1. Use a portable electrical supply to test RCDs and RCBOs before certifying/signing the COES, if practicable and safe to do so; or
2. Issue/certify the COES before testing the RCDs and RCBOs, subject to the following conditions:
 - A Responsible Person ensures testing of the RCDs and RCBOs occurs within 30 days of connection of the electricity supply; and
 - This condition is noted on the COES submitted to ESV; and
 - Confirmation of testing having occurred is recorded by the Responsible Person and such confirmation is made available at the switchboard where the RCDs and RCBOs are installed.

In these circumstances, ESV will allow the LEI inspecting the prescribed electrical installation work to choose from the following two options in order to meet their testing obligations prior to signing the certificate of inspection:

1. Use a portable electrical supply to test RCDs and RCBOs before certifying/signing the COES, if practicable and safe to do so; or
2. Ensure the Responsible Person has:
 - (a) tested the RCDs and RCBOs before certifying/signing the COES; or
 - (b) noted on the Prescribed COES that the Responsible Person will return to site within 30 days of connection of the electricity supply to perform testing of the RCDs and RCBOs as required/agreed.

ESV intends to revisit this position once purpose built portable testing equipment that enables safe and effective testing of RCDs and RCBOs when electricity supply is not available has been developed and is commercially available.

Who we are

We are Victoria's safety regulator for electricity, gas and pipelines.

Our role is to ensure that Victorian gas and electricity industries are safe and meet community expectations. We are also responsible for licensing and registering electricians, and educating the community about energy safety.

More information is available on the Energy Safe Victoria website: www.esv.vic.gov.au