

The following info from <http://www.docep.wa.gov.au/EnergySafety/RCD/faq.htm>

1. What is an RCD and how does it work?

An RCD is a safety device that monitors electrical current flowing within a circuit from the switchboard. It works on the principle that the electricity current flowing in must be equal to the current flowing out of the circuit.

If the RCD detects an imbalance in the electrical current, indicating a leakage to earth, e. g. current flows through someone's body to earth, the RCD immediately cuts the electricity supply to prevent electrocution.

RCDs are extremely sensitive, disconnecting within 10 to 50 milliseconds of detecting 30 milliamps or more of leakage current.

2. Why two RCDs?

The household circuits need to be divided evenly between two RCDs to ensure some light and power remains if one operates. Two RCDs also reduce the possibility of tripping due to some appliances which have low levels of earth leakage.

3. Is an RCD the same as a circuit breaker?

No. Many homes already have circuit breakers installed. However, circuit breakers only protect against overloading and short circuits. They do not prevent electrocution.

4. How do I tell the difference between an RCD and a circuit breaker?



An RCD looks like a circuit breaker but also has a test button. The [attached photograph](#) shows two circuit breakers compared with an RCD (**note the test button**).

Combined RCD/circuit breaker are available also. These devices provide protection from overload, short circuit and electrocution. They also have a test button.

5. Why does my house not have RCDs?

Since 2000, it has been compulsory for all new homes to have two RCDs fitted to protect the power point and lighting final sub-circuits as part of the initial electrical installation.

However, homes built before 2000 were not required to have two RCDs fitted.

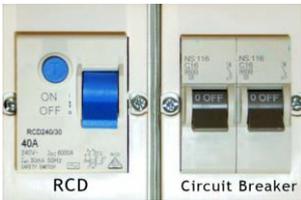
Also from 1992 to 1999 only one RCD was fitted to protect some of the power points and not the lighting circuits.

6. Where are the RCDs fitted?

RCDs are required to be fitted at the origin of the power point and lighting final sub-circuits which will be at the main switchboard or distribution board for the residence.

7. What if I want to buy a house and no RCDs are fitted?

From 9 August 2009, two RCDs must be installed in every residential property before it can be sold. If you are considering buying a property, check the main switchboard of the home for the RCDs before you sign the offer and acceptance form. RCDs can be identified by the test button ([See picture](#)).



If there are no RCDs, you should include a condition in the real estate agent's Offer and Acceptance Form that the property must have two RCDs installed to protect all power point and lighting final subcircuits to comply with AS/NZS 3000:2007, Wiring Rules. The settlement agent should then ensure that this condition is met before the sale takes place.

Properties built after 2000 should already have two RCDs fitted.

8. What if the property I own, or want to buy, only has one RCD? Is that enough?

No. A second RCD must be installed and the power point and lighting circuits divided between the two RCDs. If you own the property, contact an licensed electrical contractor to arrange for a second RCD to be installed. If you are the buyer you need to include the installation of a second RCD as a condition in the Offer and Acceptance Form.

9. If I buy a house with RCDs fitted, how can I tell if they meet the regulations?

A licensed electrical contractor is the best person to advise if your RCDs meet the regulations.

However, you can do a simple check to determine if your residence is protected in accordance with the new legislation as follows:

- Plug a small lamp into a power point and make sure it works. Leave it turned on.
- Make sure that electricity is connected to the property and the main switch is in the on position. The lamp should be on.
- Turn off all electronic equipment (computers and televisions) etc
- Check that there are at least two RCDs fitted at the main switchboard. If only one RCD is installed, another RCD will need to be fitted.
- Push the test button on each RCD. Do not hold your finger on the test button. The RCD should operate (turn off). If it does not operate, it must be checked by an electrical contractor.
- After pushing the test button and the RCDs have turned off check that all the lights and power points do not operate. To do this, plug the small lamp into all the power points and turn the power point on. If the lamp turns on a licensed electrical contractor must be engaged to correct the wiring.
- When finished testing, turn the RCDs back on and check that the lamp works when plugged into a power point.

10. If I am selling a house how do I prove to the buyer that two RCDs are installed to meet the new legislation?

There is no requirement to provide proof that RCDs are fitted to a residence under the new RCD legislation. However, if requested by the buyer then it is recommended that you or the buyer engage a licensed electrical contractor to inspect the residential installation and provide an Electrical Safety Certificate stating that two RCDs are installed protecting all power points and lighting final sub-circuits in according with AS/NZS 3000:2007 Wiring Rules . A sample of this certificate is provided [here](#).

11. If RCDs are fitted, how can I check if they are operating correctly?

All RCDs are manufactured with a test button. Homeowners and tenants should press the test button every three months.

Pushing the test button simulates an earth leakage fault and indicates whether or not the device is operating correctly. Electrical clocks and timing devices may have to be reset after the test button has been pushed and the RCD turned back on.

12. Who can install RCDs and how much will it cost?

Any licensed electrical contractor can supply and fit RCDs. As a guide, it should cost no more than \$500 to supply and fit two single-phase RCDs in an average-sized 4x2 home. Ask a licensed electrical contractor for a no-obligation price quotation.

13. RCDs must be installed to meet the AS/NZS 3000:2007, Wiring Rules - what does this mean?

AS/NZS 3000:2007, Wiring Rules is the minimum safety standard that all electrical installing work must meet in Australia and New Zealand. All licensed electrical contractors will have a copy of this standard and are familiar with its requirements.