



Safe at home

Guide to safety switch
Electrical Installation Rules
(AS/NZS 3000:2018)

:hager

Keeping you and your family safe





At Hager, we are proud to produce the very best electrical products, solutions and services. We are constantly evolving and improving: working on better products and innovative technologies to make your life easier and safer.

Electrical installation rules Improved safety





Why is it changing?

The Australian Standard AS/NZS 3000:2018 Wiring Rules governs all electrical work and every electrician in the country must comply with them.

The Rules are regularly updated to improve safety, and to reflect new technologies and products.

As a global leader in electrical protection and safety switches, Hager has been an integral part of developing the changes alongside Standards Australia in consultation with the industry.

By complying with the Standard, your electrician will be providing the highest standards of electrical safety.

What's changing?

Mandatory compliance to the updated Wiring Rules were enforced on 1st January 2019.

The changes mean electrical contractors will need to complete some work differently. Some jobs will take longer and some will require a different product. In all cases, the safety of your home will be improved.

A key change to safety switch requirements was introduced in the AS/NZS 3000:2018 Wiring Rules: **A safety switch is now mandatory on all final sub-circuits in new domestic and residential installations.**

What is a safety switch?

Safety switches save lives. They are found in either your external meter box and/or your internal switchboard. In an event where a human accidentally comes in contact with the current, the safety switch will trip the power within milliseconds to save you or a member of your family from electric shock.

At Hager, we provide two types of safety switches: RCBOs (residual current operated circuit breaker with overcurrent protection) and RCDs (residual current device). For more information, refer to page 10 of this brochure.

What it means for your new build

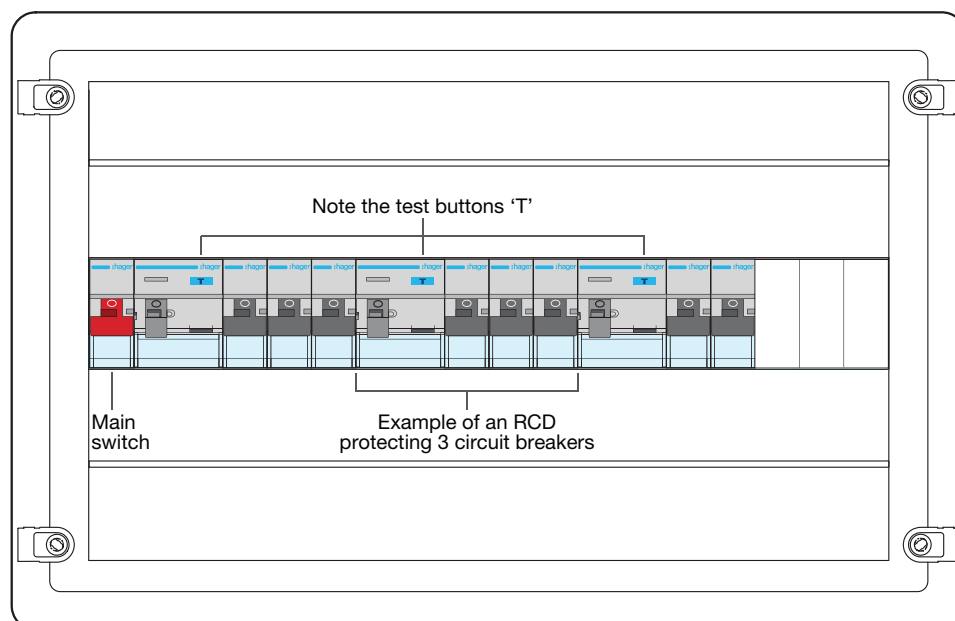


The average Australian home has a minimum of two powerpoint circuits, two lighting circuits and a number of appliance specific circuits for hot water systems, air-conditioners and so on. From January 2019, safety switches became mandatory for all circuits without exception.

How do I comply?

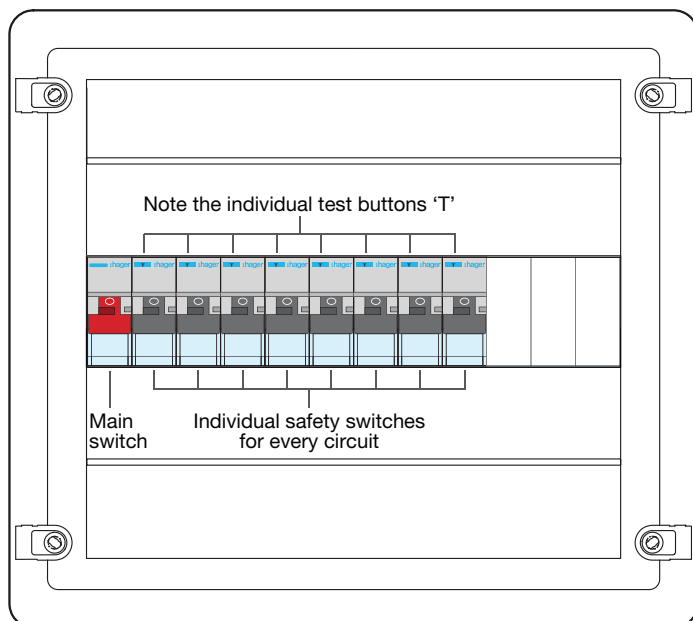
Ensure your electrician is using a Hager product, as all of our products are compliant with the Standard.

Compliant 





Best 



Protecting each circuit with its own RCBO is the best option to guarantee optimised safety and also isolates the fault to the only circuit affected, so there is no risk of a complete black-out!

Protecting all circuits with a safety switch (RCD or RCBO) is mandatory.

Safety switches are easily identifiable as they have a test button 'T'.

What it means for your existing home



Safety switches have been mandatory in new or extended homes since 2000, and only for a limited number of circuits.

35% of Australian homes are not fitted with safety switches and 25% only have power circuits protected. Most homes have no safety switch protecting the stove, air conditioner, hot water etc.

For any electrical work done in your home, a safety switch must be installed.

Alterations

The installation of a safety switch is mandatory where any alteration to an existing circuit is undertaken.

Example of an addition:

An exhaust ceiling fan or a ceiling sweep fan or a smoke detector added to an existing circuit not already protected.

Switchboard replacement

Where all the circuit protection devices in a switchboard are replaced, additional protection by using safety switches should be provided for all the final sub-circuits supplied from that switchboard.

Repairs

For existing installations; where a single item of electrical equipment e.g. a powerpoint or a light switch, that is not protected by a safety switch, is replaced with an equivalent item in the same location, a safety switch does not need to be installed.

However, to ensure the highest standards, it is preferable to protect the circuit by using a safety switch.



“Every householder in NSW has a legal responsibility to keep their home safe, including the way it uses electricity. If you haven’t already done so, seriously consider installing an electrical safety switch.”
- Fair Trading NSW

Reducing risk with safety switches

Safety switches are the single most effective measure to prevent electrocutions and serious electrical injuries.

A key change to safety switch requirements was introduced in the AS/NZS 3000:2018 Wiring Rules: **A safety switch is now mandatory on all final sub-circuits in new domestic and residential installations.**

The risk is real: 15 people are killed and about 300 seriously injured each year in avoidable electrical accidents in homes. Make sure your installation is safe.

If contractors do not comply with the Wiring Rules they will be subject to non-compliance implications, including fines. More importantly, non-compliance puts you at risk.

RCBOs **Protect people & against fire**

Some products already combine both functionalities in one compact device, like our RCBO (residual current operated circuit breaker with overcurrent protection) safety switch. They protect electrical circuits and, more importantly, protect you from electrocution. Such products not only guarantee optimised safety but also isolate the fault to the only circuit affected, so there is no risk of a complete blackout!

RCDs **Protect people**

RCDs (residual current devices) are safety switches designed to protect life from electrocution. In an event where a human comes in contact with the current, the safety switch will trip the power within milliseconds to save you or a member of your family from a potentially fatal electric shock.

They are found in either an external meter box and/or your internal switchboard.

Circuit breakers **Protect against fire**

RCDs must go hand in hand with miniature circuit breakers (Maximum 3 circuit breakers associated with 1 safety switch), which are designed to protect your family and home from the risk of fire. A miniature circuit breaker is an automatic electrical switch designed to cut power from a circuit in case of overloading or a short circuit. A typical risk is when too many appliances are plugged in to a power source, resulting in overheating of cables. Again, if in doubt contact your electrician.

These two circuit protection devices go a long way towards safeguarding homes and lives.



Call a licensed electrician

It is important to get a licensed electrician to perform any electrical works, except for these simple jobs, which you can do yourself:

- changing an electric light bulb
- changing the starter in a fluorescent light fitting
- resetting a circuit breaker or safety switch
- test a safety switch with the test button 'T'

Be sure the electricity is turned off (except when resetting a circuit breaker or safety switch where power needs to remain on) and take due care. If you are unsure, or if a fault still persists, call a licensed electrician.

It is recommended that you test each safety switch every 3 months by pushing the test button 'T'. If the device does not trip, it needs to be replaced immediately.



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