

Safety switch keeps tripping? Check this before an electrician is booked.

A **safety switch** is one of the switches in your **switchboard** — the box of switches that controls the power to your home. Its job is to protect people from electric shock. When it senses electricity leaking where it shouldn't, it **"trips"**: it switches itself off in a split second and the power goes off. You may also see it called an **RCD**.

Often the cause is a faulty appliance that is plugged in, not the wiring in the home. This guide helps you find out which. It takes about 30 minutes, then a day or two to confirm.

STOP — DON'T USE THIS GUIDE IF

- Anyone has had an electric shock or tingle, even a small one — including from a tap, shower or sink
- You can smell burning or see smoke, scorch marks or sparks
- The switchboard is wet, damaged, hot to touch, or buzzing loudly
- Water is leaking into the ceiling, walls, a light or a power point
- A power point, switch or light is damaged, melted or discoloured
- Lights are flickering, dimming, or unusually bright
- Anyone in the home relies on powered medical or life-support equipment
- You feel unsure or uncomfortable at any point — that is fine

Leave the power off and keep everyone away. Someone hurt or a fire: call 000. A tingle from a tap, or flickering lights: call your electricity network (below) — this can be a fault in the supply to your home. Anything else: call your property manager. After-hours numbers are on the last page.

FIRST, IS IT JUST YOUR HOME?

If your neighbours are also without power, it is a power outage, not your safety switch. If your whole home is off, your neighbours have power and nothing on your switchboard is pointing down, the problem may be the supply to your home. In both cases call your electricity network, not an electrician: **Ausgrid 13 13 88** (most of the Hunter) or **Essential Energy 13 20 80** (some rural areas). The network's name is on your power bill.

FILL THIS IN NOW, WHILE YOU HAVE POWER

YOUR PROPERTY MANAGER

PHONE / EMAIL

BEFORE YOU START

- Read the guide through first, or print it. Have a torch, and keep your phone charged.
- Dry hands, shoes on. Never touch the switchboard if it, or you, are wet.
- Keep the fridge and freezer closed. Food stays cold for a few hours.
- Write down what was happening when the power went off: raining? kettle on? washing running?

HOW THIS GUIDE WORKS

- A** Find the tripped safety switch
- B** Try to reset it
- C** Unplug everything
- D** Reset it again
- E** Find the faulty appliance
- F** Only if D trips again: find the faulty circuit

PART A Find the tripped safety switch

1 Find your switchboard.

Your switchboard is the box that holds the electricity meter and the switches together. It is often called the meter box. Look for a grey, cream or white box on an outside wall, in the garage, or in a hallway cupboard. In units the meters are often in a shared meter room, with a smaller board of switches inside your unit.

Some homes also have a second, smaller board with more switches in it. If the tripped switch is not in the main box, look there too.

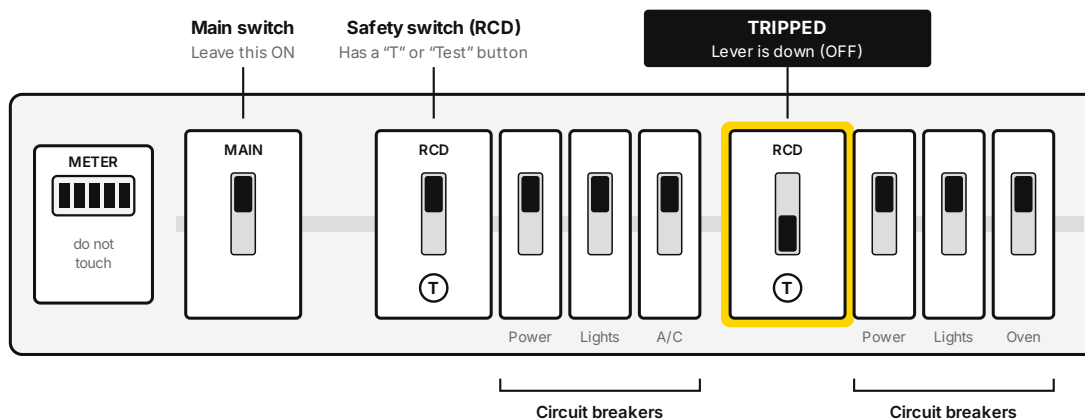
2 Open the switchboard door.

Only open the hinged door or flip-up window. Never unscrew or remove any panel, and never touch anything behind one. If it is locked, contact your property manager.

Don't touch the electricity meter, any sealed fuse, or any switch labelled Solar, PV, Inverter or Battery.

3 Find the safety switch that is OFF.

Safety switches have a small button marked "T" or "Test". They may be labelled "RCD", "Safety switch" or "RCBO". A switch is **ON when its lever points up** and **OFF when it points down**. The tripped safety switch is the one pointing down while the others point up. If your switches sit sideways, look for the one pointing the opposite way to the rest.



Lever UP = ON. Lever DOWN = OFF. Each safety switch usually looks after the circuit breakers beside it.

Main switch

Turns off power to the whole home. Usually labelled "Main switch". Leave it ON.

Safety switch

Has a Test button. Switches off when it senses leaking electricity. Usually looks after the circuit breakers beside it.

Circuit breaker

A narrow switch with no Test button. Each one controls one area, such as the lights or the bedroom power points.

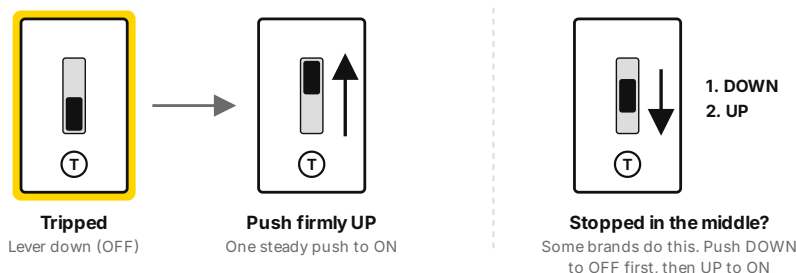
YOUR SWITCHBOARD LOOKS DIFFERENT?

- **Every switch has its own Test button.** Your home has RCBs — a safety switch and circuit breaker in one, for each area. Follow the guide as normal, but skip Part F.
- **Only a circuit breaker (no Test button) is down.** Usually too many things were running in one area. Unplug things in that area, then push it firmly up once. If it goes off again, leave it OFF and report it.
- **Only white ceramic fuses, and nothing with a Test button.** The home may not have a safety switch, and this guide doesn't apply. Don't touch the fuses — contact your property manager.

Wired-in smoke alarms may beep while the power is off. That is normal — they have a backup battery. If one keeps chirping after the power is back, tell your property manager.

PART B

Try to reset it – twice at most



4 If the lever is stuck in the middle, push it DOWN first.

Most safety switches drop all the way down when they trip. Some brands stop in the middle instead, and they won't reset from there.

5 Push the safety switch firmly UP to ON, in one steady push.

If it snaps straight back down as you push, it usually hasn't broken. It is doing its job because something is still faulty.

6 Did it stay on?

Yes, it stayed on

Probably a one-off — a storm or power surge can do this. Use the home as normal. If it goes off again, write down what was running and start at Part C.

No, it went off again

Try steps 4 and 5 once more at most. Never hold, tape or force the switch up.

GO TO PART C

Unplug everything

7 Pull the plug out of every power point in the home. Every power point should end up empty.

Don't just switch off at the wall. The wall switch usually only disconnects one of the two wires, so some faults can still trip the safety switch. Unplug power boards and extension leads from the wall too.

8 Walk through every area and check every power point. Tick each area when it's done.

- ☐ Kitchen ☐ Laundry ☐ Bathrooms ☐ Bedrooms ☐ Living areas ☐ Garage and shed
☐ Outside

9 Check the sneaky ones. These are the plugs people miss most.

- | | |
|---|--|
| ☐ Dishwasher
Cupboard beside it or under the sink | ☐ Gas cooktop
Plug for the spark lighter, in the cupboard below |
| ☐ Rangehood
Cupboard above it | ☐ Built-in microwave
Cupboard above or beside it |
| ☐ Washing machine and dryer
Behind the machine or high on the laundry wall | ☐ Fridge
Behind it, or in the cupboard beside it |
| ☐ Second fridge or freezer
Garage, shed or patio | ☐ Gas or heat-pump hot water
Power point on the wall beside the unit, outside |
| ☐ Outdoor power points
Patio, pergola, carport, side of the house | ☐ Pump power points
Pool, spa, pond and rainwater tank pumps |
| ☐ Garage door motor
Power point on the garage ceiling | ☐ Wall-mounted TV
Behind the TV or in the cabinet below |

Don't move heavy appliances, climb ladders, or go into the roof or under the house. If you can't reach a plug safely, ask someone to help, or write it on the form.

Some things are wired in and can't be unplugged: oven, electric cooktop, electric hot water tank, air conditioning, lights and exhaust fans. Leave them. Part F checks them if needed.

Reset it again with everything unplugged

10 Push the safety switch firmly UP to ON.

If the lever is stuck in the middle, push it down first.

11 Did it stay on?

Yes, it stayed on

The fault is probably something that was plugged in.

GO TO PART E

No, it went off again

The fault is probably in the home's wiring or a wired-in appliance.

GO TO PART F

PART E Find the faulty appliance

It is fine to reset the safety switch each time it goes off during this part.

12 Plug in ONE appliance and turn it on.

Start with the fridge, so your food stays cold.

13 Use it for about 5 minutes.

Some appliances only trip once they heat up. Boil the kettle, run the heater, or run the washing machine or dishwasher until the water warms up.

14 If the safety switch stays on, leave that appliance plugged in and move on to the next one.

Repeat steps 12 and 13, one appliance at a time.

15 If the safety switch goes off, unplug the last appliance you plugged in.

Put a note on it: "DO NOT USE". Reset the safety switch. Then keep testing the rest — there can be more than one faulty appliance.

16 Double-check it in a different room.

Plug the suspect appliance into a power point in another room — if some rooms kept their power when the safety switch tripped, use one of those. Turn it on. If the safety switch goes off again, the appliance is faulty. If it works fine there, the problem may be the first power point or its wiring: don't use that power point, and report it.

17 Confirm it over the next day or two.

Plug everything else back in — but not the faulty appliance — and use the home as normal. If the safety switch stays on, you have found the fault.

18 Have the appliance repaired or replaced, then let your property manager know.

Don't open it up or try to fix it yourself. Use an appliance repairer, the shop you bought it from, or the manufacturer's warranty — not an electrician. If the appliance came with the property (for example a dishwasher), report it to your property manager instead.

IF NOTHING TRIPS

Sometimes everything goes back in and the safety switch stays on. The fault may come and go, or a few older appliances may each be leaking a little and add up to a trip together. Write down what was running each time it goes off, and report it with your form.

Only if it goes off again with everything unplugged

Skip this part if every switch on your board has its own Test button (RCBOs). The one that tripped already tells you which area has the fault. Write down its label and report it.

19 Turn OFF the circuit breakers beside the tripped safety switch.

These are the ones it looks after (see the diagram on page 2). If you can't tell which ones, turn them all off. Leave the main switch ON, and any second main switch labelled "Hot water" or "Off-peak". Don't touch any Solar, Inverter or Battery switches.

20 Push the safety switch firmly UP to ON.

If it goes off even with those circuit breakers off, **stop here**. Leave everything off and report it now — this is urgent. The fault is in the wiring, the switchboard or the safety switch itself.

21 Turn the circuit breakers back ON, one at a time.

After each one, turn on the lights around the home and wait 30 seconds.

22 When the safety switch goes off, write down the label of the last circuit breaker you turned on.

No label? Write where it sits instead, for example "4th from the left".

23 Leave that circuit breaker OFF. Reset the safety switch and turn the others back on.

You should now have power to most of the home. Report that circuit to your property manager — it needs an electrician. It is where the electrician will start looking, although the fault may turn out to be elsewhere.

PART OF THE HOME STILL WITHOUT POWER?

Use a torch, take care on stairs, and keep the fridge closed until it's back on.

What your result means

Find the row that matches what happened. You will need the row number for the form on the next page.

#	WHAT HAPPENED	WHAT IT MOST LIKELY MEANS	WHAT TO DO	ELECTRICIAN?
1	Reset first time and stayed on (Part B)	A one-off, e.g. a storm or power surge	Use the home as normal. Note it if it happens again	No
2	Went off with one appliance, and again when it was tried in another room (Part E)	That appliance is faulty	Stop using it. Have it repaired by an appliance repairer, or replace it	No
3	Went off with one appliance in one power point, but the appliance works fine in another room (Part E)	A possible fault in that power point or its wiring	Don't use that power point. Report it	Yes
4	The faulty appliance came with the property, e.g. a dishwasher	The property's appliance is faulty	Stop using it. Report it to your property manager	Property manager decides
5	Stayed on with everything unplugged, but goes off once several things are in, or now and then with no pattern	Several appliances leaking a little each, or a fault that comes and goes	Report it with your notes of what was running	Possibly
6	Goes off overnight, or at the same time each day	Something on a timer, e.g. hot water, a pool pump, or a fridge defrosting	Report it with the times it happened	Possibly
7	Only goes off in or after rain	Water in an outdoor light, power point, lead or pump	Unplug all outdoor items and extension leads. Don't touch wet power points. If it still goes off in rain, report it	Yes, if it still happens
8	A circuit breaker with no Test button keeps going off (Part A)	Too many things running in one area, or a fault in that area	Leave it off and report it	Possibly
9	Goes off when one circuit breaker is turned on, with nothing plugged in (Part F)	A wiring or wired-in appliance fault, probably on that circuit	Leave that circuit breaker off. Report it with its label	Yes
10	Goes off even with the circuit breakers off (Part F)	A fault in the wiring, switchboard or safety switch	Leave everything off. Report it now	Yes — urgent

ABOUT CALL-OUT COSTS

Faults in the property's wiring, switchboard and wired-in appliances are generally the owner's responsibility to repair. If an electrician is sent out and the cause turns out to be an appliance you own, the owner or agent may ask you to pay for that visit. Working through this guide, and sending your results, helps make sure an electrician is only booked when one is needed.

Report back to your property manager

Fill this in and send a photo of it, plus a photo of your switchboard with the door open, to your property manager. Can't print it? Just send the answers in a text or email, or read them out over the phone.

YOUR NAME	PHONE
PROPERTY ADDRESS	
DATE AND TIME IT WENT OFF	WEATHER AT THE TIME
WHAT WAS RUNNING WHEN IT WENT OFF	
MY RESULT — ROW NUMBER FROM PAGE 7	FAULTY APPLIANCE (IF FOUND)
CIRCUIT BREAKER LABEL OR POSITION (PART F)	PLUGS I COULDN'T REACH
IF I STOPPED PART-WAY, IT WAS BECAUSE	

Danger or emergency after hours?

Someone hurt or a fire: **000**. Power out in the street, fallen wires, or a tingle from a tap: **Ausgrid 13 13 88** or **Essential Energy 13 20 80**. An urgent electrical fault in the home: contact your property manager, or call us directly.

0400 232 172

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