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When the RCCB trips: Checklist for possible causes

01 — Have changes been made to the system, e.g. have new lamps or sockets been installed? ☐

If so, there may be a wiring fault or loose terminals.

02 — Could the weather be a factor? ☐

A lightning strike can trip the switch due to greater surge currents. A slow-blow residual current circuit-breaker (KV design or type F) will help here. If there is heavy rain, damp walls together with slightly damaged cables may result in residual currents. Heavy rainfall can also flood outdoor lighting.

03 — Have new electrical devices been connected or put into operation? ☐

High inrush currents (e.g. those of LED lighting systems) can cause the residual current circuit-breaker to trip. Type F or KV-design residual current circuit-breakers will remedy this.

04 — Exactly where is the fault located? ☐

Isolate the fault by switching off individual circuits via the relevant MCB. If all circuits except one work, you have localised the fault. First concentrate on individual electrical consumers and start with the last device connected. If you still can't find the culprit, continue with checks 5-7.

05 — Have cables been damaged, e.g. during renovation work? ☐

Carry out a visual inspection: is there any visible damage, or are there exposed cables? Warning: This may be a fire hazard!

06 — Is the insulation resistance of one or more wires too low or can residual currents be detected with the leakage current measurement clamp? ☐

One or more wires are damaged. The damage must be found and repaired.
In some cases, it is a good idea to re-lay the cable.