THE RN + R2 ALTERNATIVE: PROVING CONDUCTORS ARE IN THE RIGHT PLACE

WHEN DO YOU TEST RN PLUS R2?

Guidance Note 3 · p.59 · Figure 2.14 . An alternative to test method 1 ($R_1 + R_2$), for protective conductors **downstream of a control device that is open-circuit when power is removed** — contactors, motion or day/night controls, timers, dimmers, smart switches, building management systems.

✋ **An $R_1 + R_2$ test proves the line and the cpc.** Tested at each point, it shows the line and cpc are continuous and connected through — and, probed at the marked terminals, their polarity. The Edison screw centre contact still gets its own check (above). A line and cpc swapped with each other still reads, so inspection finds that one. It never touches the neutral. But with the control device open, the line is broken and the test cannot get through.

`Measure $R_n + R_2$ instead of $R_1 + R_2$`

The neutral is not switched, so you link neutral to earth temporarily at the board and measure $R_n + R_2$ at each point. It proves the cpc the same way, through the neutral instead of the line.

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