RCD TESTING PRACTICAL: WHICH CIRCUITS NEED 30 MA

WHY IS IT SAFE TO SWITCH ON NOW?

RCDs are everywhere now: every socket-outlet circuit used by ordinary people needs 30 mA protection under Reg 411.3.3, and domestic lighting under 411.3.4. This test proves each RCD **disconnects fast enough**.

It's a **live** test with the installation energised — safe to do now, because every test before it has proved the installation is sound. Earth fault loop impedance is tested **before** the RCD tests.

TEST	ON A 30 MA RCD	EXPECT
½ × IΔn	15 mA	Should **not** trip — it isn't over-sensitive · *recommended*
1 × IΔn	30 mA	Must trip, within **300 ms** (500 ms for an S-type, time-delayed) · *recommended, and the one BS 7671 requires*
5 × IΔn	150 mA	Within 40 ms (150 ms S-type) · *optional, for fault-finding only*

BS 7671 only requires the 1× test, with the instrument on Type AC, and the result recorded on the schedule of test results. Guidance Note 3 recommends ½× and 1× (Table 2.18(a)); 5× and the Type A, F and B tests are its optional tests (Table 2.18(b)) — for fault-finding, not BS 7671 requirements, and they shorten the RCD's life.

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Guidance Note 3 · Table 2.18(a) recommended · Table 2.18(b) optional · p.96

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