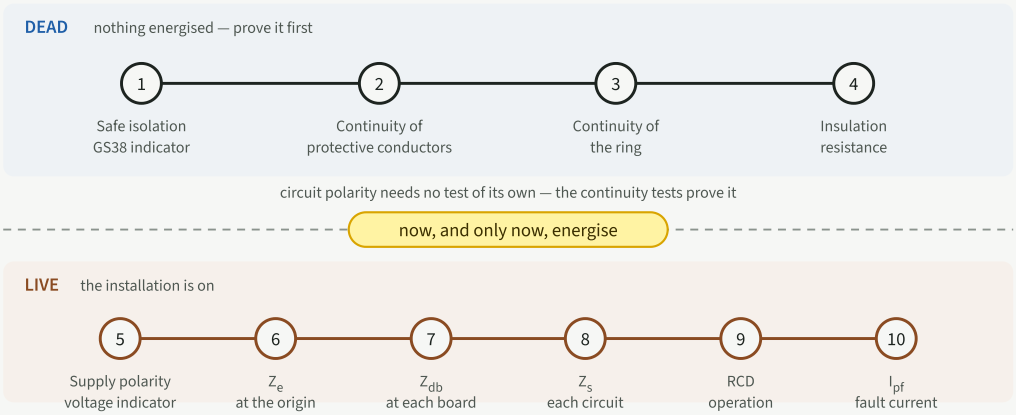
# THE WHOLE TEST SEQUENCE, IN ORDER

## CAN YOU WRITE THE TEST SEQUENCE COLD?

Worth copying out once from memory, then checking against **Guidance** **Note 3** · Figure 2.12 · p.57 or **On-Site Guide** · section 10.

| # | TEST | INSTRUMENT | ON WHICH CONDUCTORS |
|---|---|---|---|
| **DEAD** | | | |
| 1 | Safe isolation | GS38 approved voltage indicator | All combinations — see below |
| 2 | Continuity of protective conductors | Low-resistance ohmmeter | $R_2$ on bonding, then $R_1$+$R_2$ on circuits |
| 3 | Continuity of ring final conductors | Low-resistance ohmmeter | L, N, CPC — three steps |
| 4 | Insulation resistance | Insulation resistance tester | Live conductors together to earth; between live conductors |
| — | *Polarity (circuit)* | *proved by the continuity tests* | |
| **LIVE** | | | |
| 5 | **Supply polarity** | Approved voltage indicator | All combinations — now looking for voltage |
| 6 | Earth fault loop impedance $Z_e$ | Earth fault loop impedance tester | Line–earth at the origin |
| 7 | $Z_{db}$ — at each distribution board | Earth fault loop impedance tester | Line–earth at the board |
| 8 | $Z_s$ — each circuit | Earth fault loop impedance tester | Line–CPC at each point |
| 9 | RCD operation | RCD tester or MFT | See below |
| 10 | Prospective fault current $I_{pf}$ | Same instrument, PFC button | PEFC and PSCC — record the higher |




Every dead test has to pass before anything is energised — that is what the sequence is for. Note the one with no number: **circuit polarity** needs no test of its own, because steps 2 and 3 already proved it. Supply polarity at step 5 is a different thing, and it is live.

✋ **Know Guidance Note 3's grouping.** These notes take **checking the supply polarity** as the first live test. **Guidance Note 3** · Figure 2.12 · p.57 groups the live tests as earth electrode resistance, earth fault loop impedance and RCD operation, then prospective fault current, phase sequence, functional testing and voltage drop — and where there is an earth electrode, its resistance is measured **before** the installation is energised. Know which book you are answering from.

**The earth electrode test moves.**

Guidance Note 3's before-energising point fits **E1**, the dead test: it comes earlier, before supply polarity. Test method E3 needs the supply on, so on a TT system using E3 it sits with the live tests, which is where most people will meet it.

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