ACCURACY, CALIBRATION AND THE ACCURACY LOG

HOW MUCH DRIFT IS ACCEPTABLE?

Guidance Note 3 · p.134 . Your instrument drifts over the years, and an instrument reading wrong is worse than no instrument at all. Two ways to stay on top of it:

	WHAT IT IS	ROUGH COST
Calibration	Sent to the manufacturer, returned with a **certificate of calibration** saying it reads within guidelines. Yearly, or every couple of years.	£50–100
Accuracy log	Your own record — a spreadsheet will do — of checking the instrument yourself against known values between calibrations.	Your time

The check itself is straightforward. Put your leads on a source you know the value of and see whether the meter agrees:

CHECKING AGAINST KNOWN VALUES

```
Known 1 MΩ source    → insulation test should read 1 MΩ
Known 10 MΩ source   → insulation test should read 10 MΩ
Known 0.25 Ω         → continuity should read 0.25 Ω

Acceptable drift        = up to 5%, and you would hope for 1–2%
A 10 MΩ source reading 7 MΩ  → way past 5%. The instrument is out.
```

There is a card for this.

A check card — around £25, cheaper ones exist — carries known continuity and insulation resistance values on marked points. One lead on the common, one on the value you want, and read the screen. It is a **dead test**.

✋ **Null your leads first, and keep the card dry.** A check means nothing if the lead resistance is still in the reading. And a card left somewhere damp will rust on the contacts and stop being accurate — maintain it like you maintain the tester.

Free section from Sparky Study Notes. The full Level 3 notes, 1,463 practice questions and the video lessons: sparkystudynotes.co.uk