WHAT THE SWITCHES DO TO AN R1 + R2 READING

WHY DOES ONE SWITCH READ HIGHER THAN THE OTHER?

On a lighting circuit, method 1 also proves the switching. At a luminaire, operate the switch:

- **Switched off**, the loop is broken. The meter reads open circuit — its over-range display, something like **>1.999 Ω**.
- **Switched back on**, the reading comes back.

On **two-way switching** the reading also **changes** depending on which switch has made the circuit, because the line now runs through a strapper and back. More cable, more resistance.



Record the highest reading on the circuit, not the first one

One luminaire, three readings. Off proves the switch breaks the line; on proves it makes it; and the strapper route reads higher. The figures are an example from a short circuit — yours will differ.

A reading that jumps about
is usually your probe slipping off the terminal mid-test. Re-seat it and test again before you write anything down.

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