GLOBAL INSULATION RESISTANCE, RCBOS AND SENSITIVE EQUIPMENT

WHY NO GLOBAL TEST WITH RCBOS IN?

GLOBAL INSULATION RESISTANCE AND RCBOS

Figure 2.21 shows a global insulation resistance test with the RCBOs **on**, all conductors connected, and the lead clamped on the earth bar. Read a little further into the same section and the text tells you to **disconnect** them.

> `Do not do a global test where you have RCBOs`

Worth stating twice: on RCBO circuits do **individual** insulation resistance tests, not a global one. You will get problems otherwise.

Why the picture and the text disagree.

The figure is showing you the arrangement of a global test, not endorsing it with sensitive devices in circuit. The written requirement is the one to follow.

WHY SENSITIVE EQUIPMENT COMES OUT

Guidance Note 3 · pp.71–72 spells out the reason, and it is worth highlighting because it tells you how to interpret everything else:

> `Electronic devices present a low resistance during an insulation resistance test`

Relays, contactors, electronic components, RCDs and RCBOs all behave this way. If a device is going to present a low resistance to your test, it has no business being connected while you take the reading.

IF YOU CAN	IF YOU CANNOT
Disconnect it, or drop the front and bypass with connector blocks	Drop the test voltage to **250 V**

The book says "disconnect the live conductors (including neutral)".

On the bracket: if you are inspecting and testing and have not realised the **neutral is a live conductor**, something has gone wrong earlier. It is in there because people forget.

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