

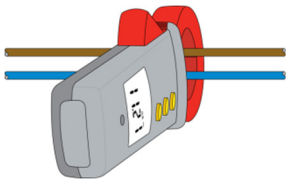


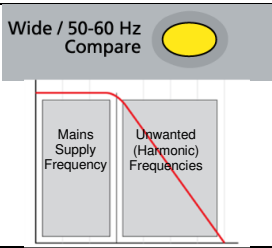
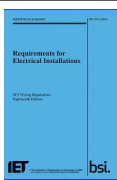


# Quick Guide For DCM305E Leakage Clamp

|   |   |
|---|---|
| <p><b><u>Intermittent Tripping Problems</u></b></p> <p>To start fault finding put DCM305E around meter tails.<br/>If reading is fluctuating then there is a fault on the system somewhere, if the reading is fixed then the problem is a cumulative value of natural earth leakage from electronic equipment.</p>   |    |
| <p><b><u>Tracing Circuit</u></b></p> <p>To find which circuit the problem is on, turn all MCB's off and then turn on one by one. The circuit with the problem will give the reading when that MCB is switched on</p>  |    |
| <p><b><u>Tracing Faults</u></b></p> <p>If it's a fault then it can be traced using the DCM305E.<br/>If a lighting circuit, go to the mid-point and if the cables are accessible put the DCM305E around the outgoing Line and Neutral, if the fault is still showing then it's further along the circuit, if it's clear then the fault is between there and the consumer unit. Keep tracing until fault found.<br/>If a ring main, split the ring at a socket and then test both legs at the board, once the leg with the problem is confirmed, go to the mid-point and do the same as above</p>   |    |
| <p><b><u>Tracing Natural Earth Leakage (Electronics, Usually EMC)</u></b></p> <p>If it is found to be natural earth leakage this cannot be repaired but distributed across different RCD's, or by changing to RCBO's. To check individual appliances make up a break-out lead and test each one individually. I would suggest a double socket so that computers and monitors can be tested together. Do not ignore Class II (double insulated) appliances as they can have differential leakage as well. Once the individual values are known the appliances can then be redistributed where possible to reduce the leakage on the RCD.</p> |  |
| <p><b><u>Other Uses</u></b></p> <p>Other uses include a quick check before doing a consumer unit change, if the reading is above 23mA there is a change an RCD will be tripping, so make sure time to rectify problem.<br/>When quoting for a consumer unit change a quick check will confirm if tripping problems after installation</p> <p>Three phase can be checked as well, putting clamp round all three phases and neutral.</p> <p>Can be used as normal clamp meter by putting around single Line cable</p>   |  |
| <p><b><u>Harmonic Filter</u></b></p> <p>By selecting the 'Wide' function only current at mains frequency is read by clamp. Any harmonic current is filtered out whether measuring on line and neutral for fault finding, or on any single live cable. This setting can be used to diagnose loading problems with electronic devices such as LED lighting issues when dimming.</p>   |  |
| <p><b><u>18<sup>th</sup> Edition New Regulation 531.3.2 states:-</u></b></p> <p>(ii) in order to avoid unwanted tripping by protective conductor currents and/or earth leakage currents, the accumulation of such currents downstream of the RCD shall be not more than 30% of the rated residual operating current.</p>  |  |