

## Megger LT320 and Megger LT330

### Automatic derivation of R1 + R2 values

Traditionally the sum of the resistance of the phase conductor R1 and the circuit protective conductor R2 have always been obtained by disconnecting the supply and connecting the phase conductor to the protective conductor at the distribution board, followed by a test between phase and earth terminals at the circuit's extremity.

If the inspection is an initial verification of a new electrical installation, then the value for R1+R2 should be obtained by the above method and using a continuity tester (i.e. Megger MIT320) as per BS7671.

However, for a periodical inspection where there is an existing previous report, after verifying the protective conductor, R1+R2

values can be acquired using the Megger LT320 or LT330 loop impedance testers.

These instruments are able to calculate the R1+R2 values from tests conducted on a live circuit.

Basically a reference loop impedance reading is saved from the distribution board (i.e.  $Z_e$ ), then the instrument is switched to R1+R2 setting, then all following loop tests, made at the extremity of each circuit, will have the reference reading subtracted and the instrument will display the R1+R2 in ohms.

These readings can then be checked against the previous report.

Note: Caution should be taken with boiler radials & circuits feeding bathrooms since parallel earth paths via any bonding will affect readings.



Megger LT320 downloading loop tester

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### MaxZ function

The MaxZ setting on these instruments is very useful for finding the maximum Zs reading in any circuit.

Simply the instrument does a loop test and stores the highest reading, any higher

readings from other tests on the same circuit are held, lower readings are only displayed momentarily, ideal for finding the maximum Zs of a ring main quickly.



LT320 Loop tester like all Megger loop testers it is 3-phase safe

## Megger RCDT320, Megger RCDT330 Megger LRCD220 Megger MFT1552 and Megger CM500 Auto RCD Test Instruments

The days of walking back and forth to a fuse board while conducting a RCD test on your own can now be a thing of the past, as most of Megger's test instruments that have a RCD test feature incorporate an auto residual current device test function.

These instruments will perform the five tests ( $\frac{1}{2}I$ ,  $I$  and  $5I$  plus  $0^\circ$  and  $180^\circ$ ) automatically. Once the instrument is connected to a convenient socket and set to the correct trip setting, allowing for normal, selective, or d.c. sensitive RCDs, a simple press of the test

button starts the sequence. The operator then stands by the RCD and resets it when it trips on the  $I$  and  $5I$  tests.

On completion of the test, the results can be retrieved by the press of a button. Repeated pressing of the button will display each test result.

Megger's MFT1552, CM500, LRCD220 RCDT320 and the RCDT330 all have the Auto RCD test function.



Control panel of the Class leading MFT1552