Clear thinking with

KEWTECH

Class I earth continuity test

Test methodology

Protective conductor continuity testing is normally performed using a test current of 200 mA (where required higher test currents can be used with precaution).

Procedure

The test is made between accessible earth metal paths and the earth pin of the plug.

Where practical, the resistance measurement should be observed while flexing the cable. Any variation in the measured value during the test should be investigated (it could be indicating a broken cable). A resistance value that is observed to increase during the test would indicate a poor connection that is heating up due to the test current. Ideally this test should be conducted for a period of between 5 to 20 seconds.

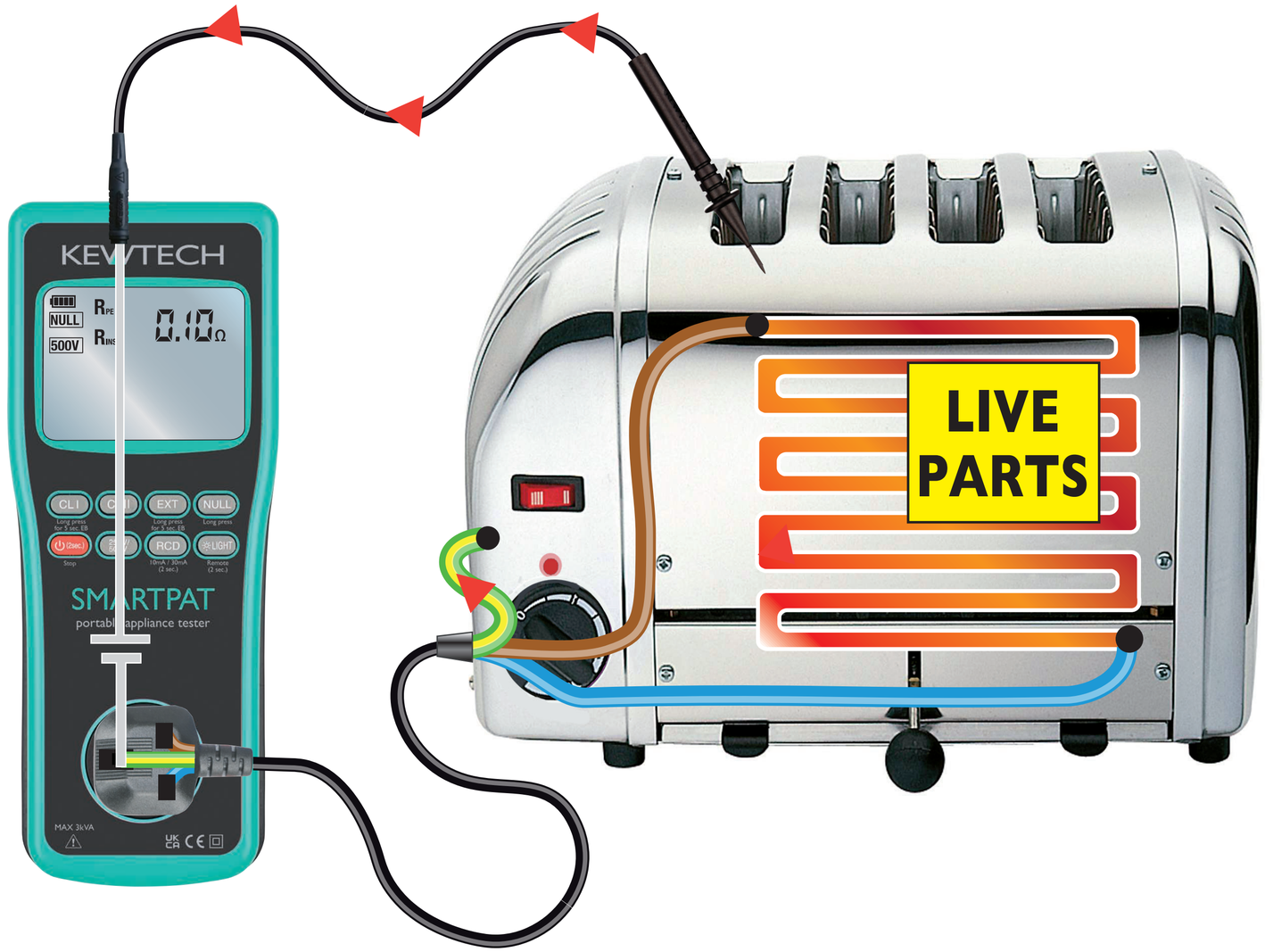
A continuity test should be made to all exposed metal conductive earth parts. This may mean multiple tests.

The resistance of the test lead must be nulled out prior to the test.

Limits

0.1 Ω + R where R is the value of the resistance of the earthing conductor in the mains lead of the appliance. If there is no mains lead then the limit is 0.1 Ω.
(In some cases older equipment may have a limit applied as 0.5 Ω.)

Note: The CoP 5th edition allows for 'older' equipment to have a limit of 0.5 Ω if the higher resistance is due to the original design and not due to deterioration.



Kewtech 'Clear Thinking' diagrams are schematics to aid the understanding of electrical testing. Ensure proper safety procedures are taken before testing.

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