

Figure 17. Testing the earth-continuity of a small installation. Good contact must be made between test leads and conduit under test

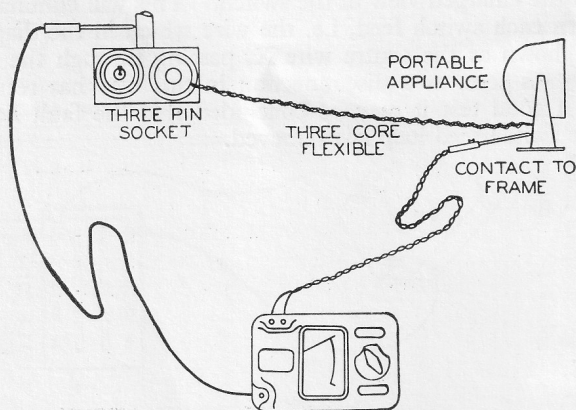


Figure 18. Earthing of portable apparatus. Simple method of tests if continuity of installations is sound

How to make the continuity tests

A tester for insulation only is unsuitable for these tests as the scale range is too high and the testing pressure excessive.

The instruments recommended for continuity testing are the Megger Insulation and Continuity Testers, Series 3, the Battery Megger Tester, The Major Megger series and the Megger Circuit Testing Ohmmeter.

Continuity tests on installations must be made with the circuit wiring dead, the procedure being as follows:—

Tests on small installations (Figure 17)

1. Open the mains switch and, as a precaution, remove the main fuses.
2. Connect one terminal of the testing instrument by a long test lead to the consumer's main earth.
3. Connect the other terminal of the instrument by a short lead to switchboxes, ceiling roses, earth-sockets of 3 pin socket-outlets, to the conduit at 2 pin sockets, to the metallic frames of connected portable apparatus, to motor frames, etc.

The resistance actually measured includes that of the testing leads, which may be measured on the instrument and their value deducted.

The net values obtained should be in accordance with the appropriate I.E.E. Regulation. See page 21.

If the resistance is excessive the cause must be sought by measurements made along the line of the continuity conductor until the joint causing the high resistance is located.

Tests on large installations using the circuit wiring instead of a long test lead (Figure 19)

1. Open the main switch and, as a precaution, remove the main fuses.