

SAFETY INSPECTION AND TESTS AFTER REPAIR AND MAINTENANCE

14

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14.0 SAFETY INSPECTION AND TESTS AFTER REPAIR AND MAINTENANCE IN THE PRIMARY CIRCUIT

14.1 SAFETY INSPECTION AND TESTS

14.1.1 General directives

- Take care that the creepage distances and clearances have not been reduced.
- Before soldering, the wires should be bent through the holes of solder tags, or wrapped around the tag in the form of an open U, or, wiring rigidity shall be maintained by cable clamps or cable lacing.
- Replace all insulating guards and -plates.

14.1.2 Safety components

Components in the primary circuit may only be renewed by components selected by PHILIPS, see also clause 12.1.2.

14.1.3 Checking the protective earth connection

The correct connection and condition is checked by visual control and by measuring the resistance between the protective lead connection at the plug and the cabinet/frame. The resistance shall not be more than 0,1 Ohm. During measurement the mains cable should be removed from the mains. Resistance variations indicate a defect.

14.1.4 Checking the insulation resistance

Measure the insulation resistance at $U = 500V$ dc between the mains connections and the protective lead connections. For this purpose set the mains switch to ON. The insulation resistance shall not be less than 2 MOhm.

NOTE: 2 MOhm is a minimum requirement at $40^{\circ}C$ and 95% Relative Humidity. Under normal conditions the insulation resistance should be much higher (10 ... 20 MOhm).

14.1.5 Checking the leakage current

The leakage current shall be measured between each pole of the mains supply in turn, and all accessible conductive parts connected together (including the measuring earth terminal).

The leakage current is not excessive if the measured currents from the mentioned parts does not exceed 0,5 mA rms.

14.1.6 Voltage test

The instrument shall withstand, without electrical breakdown, the application of a test voltage between the supply circuit and accessible conductive parts that are likely to become energized. The test potential shall be 1500 V rms at supply-circuit frequency, applied for one second.

The test shall be conducted when the instrument is fully assembled, and with the primary switch in the ON position.

During the test, both sides of the primary circuit of the instrument are connected together and to one terminal of the voltage test equipment; the other voltage test equipment terminal is to be connected to the accessible conductive parts.

14.2 INSTRUMENT REPACKING

If the instrument is to be shipped to a Service Centre for service or repair, attach a tag showing the full address and the name of the individual at the users firm that can be contacted. The Service Centre needs the complete instrument, its serial number and a fault description. If the original packing is not available, repack the instrument in such a way that no damage occurs during transport.