



Cords & RCD's

Public Buildings

Environmental Health Guide

Testing of Extension Cords and RCD's (Safety Switches)

The testing of electrical extension cords and R.C.D.'s used in circuses travelling shows and other temporary installations is a requirement of the Health Act (Public Buildings) Regulations 1992, it is also a requirement for building and construction sites.

NOTE: R.C.D.'s are also known as safety switches or E.L.C.B.'s.

The specific tests required are set out in clause 13 of A.S. 3012 - Electrical Installations - Construction and Demolition Sites.

Extension cords etc. should be tested every six months and R.C.D.'s every three months.

Once a test has been carried out a tag should be fixed to the device.

The tag should identify who carried out the tests and when they were done.

Details of the required tests are:

Extension Cords (single and three phase)

- *check that the insulation is in good order
- *check that the plug sockets and plug tops attached to the cord are the correct rating.
- *check the continuity of each conductor.
- *check that the conductors are correctly connected (correct polarity).

Residual Current Devices

Test 1: Residual non operating current -

- A current between 40% to 50% of the rated tripping current should be passed between active and earth for 5 seconds. The R.C.D. should not trip.

Test 2: Tripping current and time test -

- A current equal to the rated tripping current of the R.C.D. should be passed between active and earth. The R.C.D. should trip within its specified time - usually 30 milli seconds.



Note:

The recommended tripping current is 30 milli amps. Instruments are readily available from electrical wholesalers. Clipsal and H.P.M. are two companies that manufacture suitable test instruments. In addition to the above R.C.D. tests the inbuilt test facility should be operated each time day that the unit is in use. Portable outlet devices (such as Kambrook multiple outlets etc.) require a combination of all of these tests.

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