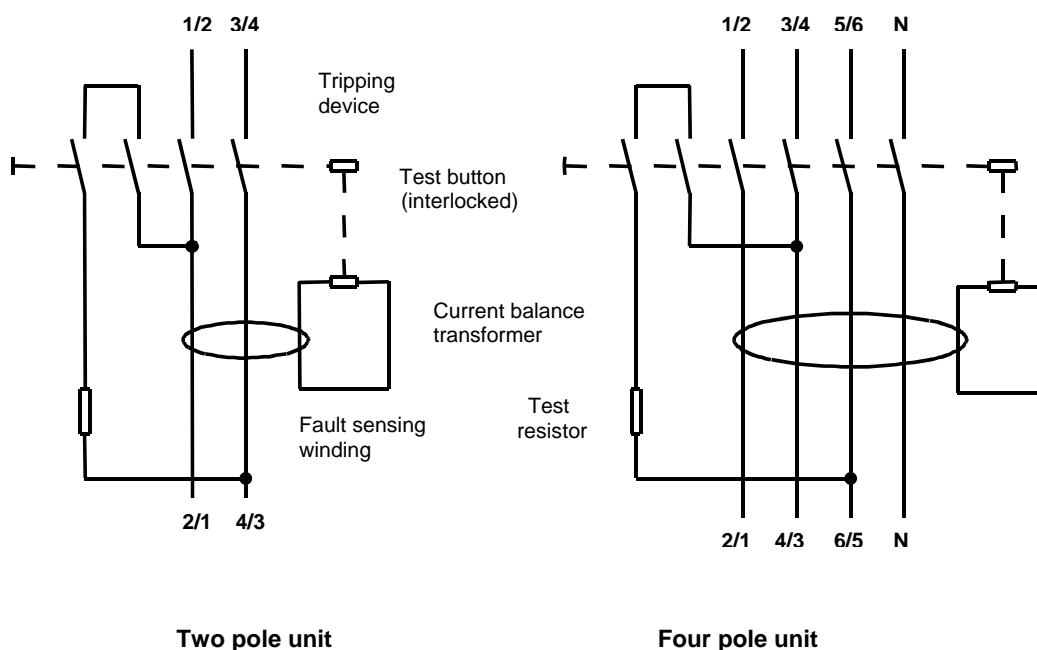




# INSTALLATION INSTRUCTIONS

## RESIDUAL CURRENT DEVICES INCOMING CONNECTIONS TOP OR BOTTOM



### Mounting Instructions

- 1 This RCD is intended for installation within an enclosure in an ambient temperature between  $-5^{\circ}\text{C}$  and  $40^{\circ}\text{C}$  with an average value not exceeding  $35^{\circ}\text{C}$  over a 24 hour period. It should not be installed at an altitude greater than 2000m above sea level, nor in an atmosphere subject to excessive pollution by smoke, dust, chemical fumes, salt laden spray, prolonged periods of high humidity or other abnormal conditions. See current product catalogues for a wide range of suitable enclosures.
- 2 As it is recommended that the consumer test the correct functioning of the RCD at regular intervals, it should be mounted in an accessible position.
- 3 The operation of the RCD is independent of its position of mounting and so if space does not permit it to be mounted vertically as intended, it can equally well be mounted horizontally and will function as effectively.

### Connecting Instructions

- 4 The incoming cables to the RCD may be taken either to the top or bottom set of terminals, dependent entirely on the ease of wiring the device. Terminal connections should be tightened to a torque of 2.3Nm (20 lbf-in) DO NOT connect using power driven screwdrivers
- 5 As the RCD works on the current balance principle, all cables feeding the protected installation (live and neutral) must be connected to the device. If this is not complied with, continuous nuisance tripping of the breaker will result when power is drawn from the supply.

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- 6 When using a 4 pole RCD on a three phase 3 wire system, the N pole should not be used. Should it be necessary to use a 4 pole RCD for a single phase circuit, poles 3 / 4 and N must be used, with a link between poles 5 / 6 and N (1.5mm<sup>2</sup> wire), otherwise the test device will not be energised when the test button is pressed and will not function.
- 7 After installation, it is recommended that the insulation resistance of all the protected conductors (live and neutral) is measured with respect to earth, using a 500V insulation tester. To do this it is necessary to connect one lead of the tester to the consumer's earthing terminal and the other lead to each of the outgoing terminals in turn, with the RCD in the OFF position. The insulation resistance measured must be at least the value prescribed in the current edition of the IEE Wiring Regulations (BS7671).
- 8 Where compliance with the disconnection times of the current edition of the IEE Wiring Regulations (BS7671) is afforded by the RCD, the measured value of the earth fault loop impedance in ohms must be such that the product of this value and the rated residual operating current of the RCD in Amps, does not exceed 50.  
e.g. The maximum permissible earth loop impedance for an RCD of 100mA sensitivity is 500 ohms since  $500 \times 0.1 = 50$ .
- 9 Where a circuit originates within the zone created by the main equipotential bonding of the installation, and that circuit is intended to supply equipment used outside the zone by means of a socket outlet rated at 32A or less, the current edition of the IEE Wiring Regulations require that protection shall be afforded by an RCD having a rated residual current not exceeding 30mA. The Regulations also require that every socket outlet in a household or similar installation forming part of a TT system shall be similarly protected. Special provisions are also made in the Regulations for the protection of site installations serving mobile (touring) caravans.

#### **Testing the RCD**

- 10 The consumer should be advised that a TEST BUTTON is incorporated in the RCD situated adjacent to the ON/OFF switch.

Having installed the unit and switched on the RCD, press the test button in order to test the correct functioning of the device. This ONLY tests the operation of the RCD and not the continuity or value of the earth resistance path, which must be done as recommended in 8 above.

A further test should then be carried out as prescribed in the current edition of the IEE Wiring Regulations to check the operation of the RCD under fault conditions.

Should the RCD fail to trip on testing, check that there is an electrical supply available. If confirmed, return the unit to the supplier.

#### **Earth continuity check on metalclad units**

- 11 After the installation of a Metalclad unit and having securely tightened the lid fixing screws, it is necessary to check the earth continuity between the BOX and LID in accordance with the current edition of the IEE Wiring Regulations for Electrical Installations (BS7671).

**Note: If the seal protecting the cover fixing screw of the RCD is broken, the guarantee is immediately invalidated.**



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