

Electrical Installation

EE280 Introduction to Electrical Engineering I

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Inspection, testing and certification

- 'Wandering lead' method



Inspection, testing and certification

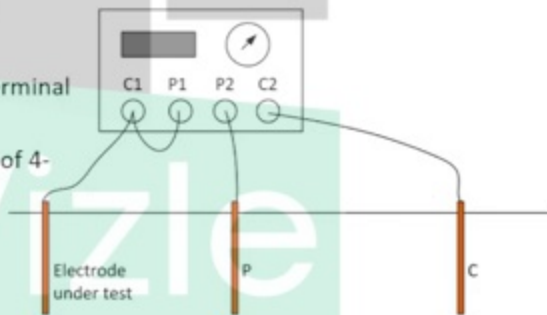
- Insulation testing
 - Completed after cables are installed
 - Test should faults or shorts as well as low insulation caused by moisture and similar
 - Electrical equipment and appliances should be disconnected prior to testing
 - Insulation resistance measured between
 - Live conductor including neutral
 - Live conductors and the protective conductor connected to the earthing arrangement

Inspection, testing and certification

- Earth resistance has three components
 - Resistance of earth electrode
 - Rods, pipes, masses of metal, etc. is used
 - Negligible resistance compared with total resistance
 - Contact resistance between electrode and soil adjacent to it
 - Negligible if the electrode is not painted or greased, and packed firmly to earth

Inspection, testing and certification

- Finding earth resistance
 - 3-terminal or 4-terminal tester is used.
 - Earth electrode is connected to
 - X – in case of 3-terminal tester
 - P1 & C1 – in case of 4-terminal tester





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