

COURSE TITLE: Fundamental Inspection and Testing for the Addition or Alteration to an Installation

COURSE REFERENCE: 717

DURATION: 21 hours (Recommended Minimum Duration)

COURSE AIMS: This course aims to provide employees working within the highway electrical industry with the knowledge and skills required to complete an initial inspection and testing on a single-phase installation for the addition and alteration to an installation that does not extend to the provision of a new circuit.

PREREQUISITES: In order to gain maximum benefit and learning outcomes from this course there are a number of training modules, which are required before attending, including mandatory 403 course. A complete list of precourse requirements is shown in the Contents.

ASSESSMENT: A summative assessment will follow the completion of this course or group of courses.

OBJECTIVES: On completion of the course learners will:

- Understand the scope of the work they are undertaking
- Understand the relevant statutory and non-statutory requirements
- State the information required to carry out inspection and testing
- Complete the required Minor Electrical Installation Works certificate ,
- Understand the requirements for the Schedule of Inspections
- State the human senses that may need to be employed during an initial verification
- Select the appropriate items that are to be checked during the inspection
- Understand the requirements of the EAWR for safe inspection and testing in terms of public and users of the installation.
- Understand Ingress Protection (IP) codes of equipment
- Understand the types of instruments used for testing
- Apply the sequence of tests and the reason for the sequence
- State the tests for protective conductors and the relationship between conductor length, cross sectional area, resistance and temperature
- State the testing for completion of insulation resistance testing and associated precautions and external influences
- State the reasons for confirming correct polarity and the methods of testing used
- State the reasons for earth fault loop impedance and describe methods for determining EFLI including by enquiry, calculation and direct measurement
- State the reasons for prospective fault current and describe methods for determination including by enquiry or direct measurement
- State the reasons for RCD testing and the method of application

COURSE TOPICS:

- Hazards and risks
- Statutory Requirements
- Test Equipment and test for use during Additions and Alternations to an Electrical Installation
- Test methods and working practices
- Recording and interpreting the results in line with BS7671 and limitations on work

PRACTICAL: To enable maximum learning and benefit from this course, there will a number of exercises. These may be both interactive and demonstrative to enhance the learning experience.