Initial Testing

Test Sequence

Electrical Installation Cert

- Upon completion of the verification of a new installation or changes to an existing installation an electrical installation certificate shall be provided. It is a requirement that:

1. The EI cert is accompanied by a schedule of inspections and schedule of test results.

Electrical Installation Cert cont’d

2. The schedule of test results shall identify every circuit, including it’s protective device and shall record the results of any appropriate testing undertaken.

3. The EI Cert shall be signed by a competent person or persons stating the integrity of the installation in terms of its Design, Construction, Inspection & Testing.

4. Any defects or omissions are made good and re-inspected & tested before issuing the EI Cert.

Test Sequence

- Subsequent to the inspection process it is necessary to carry out a range of tests in order to confirm the safety and compliance of the installation in line with BS7671.
- The tests are carried out in the particular order given as it provides a progressively safe confirmation of the viability of each part of the system prior to moving on to the next.
- Tests are sub-divided into ‘Dead Tests’ and ‘Live Tests’.

Dead Tests

- Note! All dead tests should be carried out with the installation effectively isolated from the source of supply.
- Any disconnections and/or reconnections made around the circuit in order to facilitate the testing methods must be made good subsequent to the test.
- You need to make sure that you inform the examiner of these points!

Dead Tests

- The dead tests must precede the live tests and should be carried out in the following order:
- Continuity of protective conductors including main and supplementary bonding.
- Continuity of ring final circuit conductors.
- Insulation resistance
- Protection by SELV, PELV, separation of circuits.
- Protection by barriers or enclosures provided during erection. (specialist)

Dead Tests cont’d

- Insulation of non-conducting floors and walls (specialist).
- Polarity
- Earth Electrode Resistance

Live Tests

- Polarity
- Earth Fault Loop Impedance (Zs & Ze)
- Additional Protection
- Prospective Fault Current
- Phase Sequence
- Functional Testing

- Specific guidance on the undertaking and completion of these tests is given in GN3 pages 33-57 and OSG pages 77-93.