

What is an Electrical Installation Condition Report?

Electrical Installation Condition Reports (EICR) and Portable Appliance Testing (PAT) are two of the statutory testing obligations businesses have in relation to the premises they occupy.

An Electrical Installation Condition Reports (EICR) is produced following an assessment of an electrical installation. It must be carried out by a suitably qualified electrician or electrical contractor.

A Portable Appliance Test (PAT) is, as the name suggests, a test of all portable appliances within premises. Portable devices are subject to both a visual inspection and electronic test.

What is involved in an Electrical Installation Condition Report?

The primary purpose of an EICR is to seek to identify actual and potential problems with an electrical installation before they become hazardous and pose a risk to the building or the people within it.

The report consists of three elements:

- A visual inspection
- Dead testing and
- Live testing

Visual Inspection

A visual inspection is undertaken before any testing commences. The inspecting electrician will look for damaged cabling, cracked or broken devices, incorrectly positioned devices or devices that are not fit for purpose.

Dead Testing

Dead testing consists of:

1. Continuity testing: a test to check if there are any badly connected conductors
2. Insulation resistance testing: this test is to make sure that the electrical insulation material surrounding the conductors is intact
3. Polarity: this test is to check that the connections are correctly connected



EMERALD HOUSE GLOBAL ENGINEERING LIMITED

Emerald House, Unit B Braintree Industrial Estate, Braintree Road, Ruislip, Middlesex, HA4 0EJ.

Registered in England & Wales No. 3326485. Tel: + 44 (0) 208 839 2640 Fax: + 44 (0) 208 839 2641 e-mail: us@ehge.co.uk



Live Testing

Live testing consists of:

1. Earth fault loop impedance testing: this test is to check that if a fault did occur, that the system meets requirements to cause a disconnection of the supply within the time limit specified in the electrical regulations
2. RCD testing: on modern electrical systems RCD's and RCBO's are regularly fitted. These devices are designed to protect against the risks of electrocution and fire. They monitor the circuit(s) they are protecting, detecting when electricity is flowing down an unintended path; whereupon the device switches off the circuit thereby reducing the risk of death or serious injury

As a result of his work; the inspector may make a number of electrical observations that describe a defect or an omission within the electrical installation and will give each one a recommendation code C1 C2 or C3.

- C1 = Danger Present - **Immediate** Remedial Action Required. There is a risk of injury and that immediate remedial action is required to remove the dangerous condition
- C2 = Potential Danger - **Urgent** Remedial Action Required. Potentially dangerous condition and urgent remedial action required
- C3 = Improvement Recommended. This code more often than not implies that whilst the installation may not comply with the current set of regulations, it may comply with a previous set of regulations and so is deemed to be safe. Clients may, of course, elect to improve the safety of their premises by instructing remedial work.

How Often Should an EICR be Undertaken?

Commercial premises should be inspected, generally, every five years or when changes are made to electrical services and on change of ownership.

Some premises are required to be inspected more frequently. For example: places of public entertainment such as cinemas and theatres require inspection every three years; launderettes, petrol stations and marinas every year and construction sites every three months.

Portable Appliance Testing

Many commentators suggest that PAT testing should be undertaken annually. There is, however, no *strictly* legal obligation to do so.

Nevertheless, Regulation 4(2) of the Electricity at Work Regulations requires duty holders to ensure electrical equipment is maintained "at regular, appropriate intervals" to prevent danger and insurance companies may well require testing to be undertaken as a condition of cover.

Regular appliance testing is considered to be an essential part of good health and safety practice.



