

Portable Appliance Testing Policy & Procedure (Elstree Studios)

Overview

The Electricity at Work Regulations 1989 require that any electrical equipment that has the potential to cause injury is maintained in a safe condition. BBC Studioworks therefore implements a testing regime for portable electrical appliances to ensure they are maintained appropriately and therefore help prevent electrical accidents in the workplace.

HSE definition of Portable Appliance Testing

Portable appliance testing (PAT) is the term used to describe the examination of electrical appliances and equipment to ensure they are safe to use. Most electrical safety defects can be found by visual examination but some types of defect can only be found by testing. However, it is essential to understand that visual examination is an essential part of the process because some types of electrical safety defect can't be detected by testing alone.

Types of Electrical Equipment Construction

There are three basic types of electrical equipment construction – Class I (earthed) and Class II (double insulated) and Class III (low voltage)

- **Earthed equipment** 

Class I equipment has an earth connection. If there is a fault within the equipment the risk of an electric shock is greatly reduced by the equipment being connected to earth. A functional PAT test should be carried out to ensure the earth connection is sound.

- **Double insulated equipment** 

Class II equipment is 'double insulated' equipment and does not need an earth connection. This means that there is extra insulation within the construction of the equipment to prevent accidental contact with live parts, even if there is a fault. A functional portable appliance test is not necessary, although user checks and visual inspections should be carried out as the condition of the equipment casing and cables is integral to this safety feature.

- **Low Voltage Equipment** 

Protection against electric shock in Class III equipment relies on supply from a separated extra-low voltage source (SELV). In a SELV supply the voltage is less than 50V rms and no exposed conductive parts are connected to the protective conductor.

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Portable Appliance Testing Regime

Considering the nature of the work environment within the BBC Studioworks buildings at Elstree Studios, and the types of appliances used, it has been assessed that the electrical risk level is that of Low to Medium. Based on this assessment a test regime takes the form of a yearly 'sweep' of each of the rooms/spaces in the building where BBC Studioworks are providing and managing portable appliances. This will enable any unknown equipment brought into the workplace to be picked up at least annually. In order to ensure all equipment is appropriately inspected and checked the testing regime will not differentiate between different classes of electrical equipment and all appliances will receive a functional portable appliance test as well as visual inspection.

New Portable Appliances

Although new equipment does not require to be inspected/tested, in order to add the asset to the testing register and testing schedule it will received a formal inspection including a portable appliance test so the next due date is clearly visible on the PAT label.

User Checks

All users should carry out their own visual inspection before using any equipment to ensure there are no obvious signs of damage. As part of the building induction programme all staff/tenants/clients are encouraged to be observant in regard to the condition of any electrical equipment they use and report any damaged or unsafe appliances or installations.

A user visual check should consider:

- Switch off and unplug the equipment before you start any checks.
- Check that the plug is not damaged and that the cable is properly secured with no internal wires visible.
- Check the electrical cable is not damaged and has not been repaired with insulating tape or an unsuitable connector.
- Check that the outer cover of the equipment is not damaged in a way that will give rise to electrical or mechanical hazards.
- Check for burn marks or staining that suggests the equipment is overheating.
- Position any trailing wires so that they are not a trip hazard and are less likely to get damaged.

If users become aware of any out of date PAT labels on equipment or have any concerns as to the safety of any electrical equipment they should report this immediately to BBC Studioworks Facilities.

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Formal Inspection/Portable Appliance Test

Formal visual inspections/functional tests will be carried out by suitably trained and competent operatives from Lighting Workshop. The functional test will involve the use of a PAT tester machine to confirm if the appliance functions correctly and will give a reading of 'pass' or 'fail'. All equipment tested will be logged in the online PAT log book. Labels/stickers are used to clearly identify whether an appliance has passed or failed and when the next test due date is. Any failed appliance should be immediately removed so it cannot be used. A qualified electrical engineer will inspect any failed appliances and will recommend whether it should be repaired or disposed of.

A formal visual inspection should follow the same check list as the user checks but should be carried out in a more in-depth manner using training and experience to consider such things as appropriate fuse size, that the plug is correctly wired, checking for unsafe modifications and making sure any joints are fully enclosed and made with standard connectors.

Tenants

BBC Studioworks have BBC Persia as tenants in the John Maxwell Building. They occupy office space and post-production suites. BBC Studioworks engineers carry out portable appliance testing for all the equipment provided by Studioworks however, the tenants are responsible for the electrical safety of any electrical equipment they own and provide for use within their spaces.

Production Clients

BBC Studioworks hires studio facilities, offices and ancillary spaces to television productions on a short-term basis. Any small appliances provided to clients as part of the hire agreement such as PCs and monitors, domestic coffee machines, standard lamps in dressing rooms etc will be included in the BBC Studioworks testing regime. Production clients are responsible for ensuring the safety of any portable appliances/equipment they bring into the building whether for use in the ancillary spaces or the studios and should possess their own policy/procedure on electrical safety including the safe use and maintenance of portable appliances.

Catering Spaces

BBC Studioworks provides a number of spaces for small-scale catering operations. All the equipment in these spaces is provided by the contractor. They are responsible for the safety and inspections of all their electrical equipment. As part of their contract the contractor must supply all risk assessments and certificates of inspections to BBC Studioworks. A regular inspection is carried out of the space by the BBC Studioworks Facilities team to ensure all aspects of health and safety standards are being met.

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