

BBC Studioworks

# Electrical Safety in Studios Arrangements

Health & Safety Arrangements

## Safe use of Electricity in Studios

### Scope:

This document sets out the measures in place for the use of electricity in BBC Studioworks. It sets the responsibilities and requirements of BBC Studioworks and where applicable; visiting productions as well as those of other parties.

BBC Studioworks management requires a number of documents from a production in order to plan for the use and distribution of electricity whilst a production is using the facilities. The provision of these documents helps outline the arrangements to be put in place, together with the identification of competent person(s) responsible for the electrical distribution.

### Personnel:

BBC Studioworks should ensure that they enlist the services of a competent person who will be identified as the designated responsible person for the electrical system. Usually a suitably qualified Gaffer or 3<sup>rd</sup> Party, who will provide a suitable risk assessment for the shoot / distribution.

**Note:** If the competent person leaves the studio, he / she should identify a deputy in his place, who must have access to the competent person at all times.

### Distribution (incl. Earthing arrangements):

The distribution throughout the studio should have adequate protection, using discrimination at all times. RCD's for end user protection should be tested and fit for purpose.

Total electrical loading and available loads should be known, calculated and accounted for by the studio gaffers during the design and implementation of the electrical distribution for the production.

During set up and prior to energising, assurances are to be taken to ensure that the system is being installed correctly according to the electrical load required from the system.

Completion Certificate(s) where applicable for the system are to be produced, once distribution is completed. The certificate(s) are to meet the requirements of BS7909:2011 – Code of practice for temporary electrical systems for entertainment and related purposes.

Furthermore, a schematic diagram of the temporary distribution within the studio is to be available on set at all times.

The studio has suitable earthing arrangements in place. Electrical equipment within the studio should only use the supply provided in studio. External supplies, including building corridors etc., may have separate earthing arrangements and should not be used to energise equipment or tools within the studio locations without prior permission from the Resource Manager.

The electrical supply provided within the studio is fit for purpose and has in place a suitable maintenance and inspection regime. Lighting equipment, cabling and distribution boxes must be installed by competent persons approved by studio management. They must be sufficiently tested prior to use

If the distribution is changed significantly, or damaged after the completion certificate has been issued by the gaffer, then the system may need to be tested again. This is at the discretion of the competent person / designated person responsible on set

#### **Electrical and Practical's within sets:**

All set items that have been constructed with electrical circuits and / or practical's installed must be to the latest electrical standard. Each separate set item with electrical equipment should have a plug provided and using the correct wiring arrangements.

Each piece of set with electrical equipment and /or practical's should be tested as a separate piece of equipment, including electrical testing.

The use of twisted bare conductors that have been taped together are not permitted within the studio. All terminations must be carried out using correct termination blocks and equipment.

#### **Requirements from Production Companies:**

Where facilities are not being provided by BBC Studioworks directly, the production is to ensure that all the requirements outlined in this document are met fully.

#### **Electrical equipment:**

All electrical equipment brought into the studio should be fit for purpose and have adequate maintenance and inspection regimes in place. As part of the arrangements, BBC Studioworks insists that all portable equipment is tested appropriately (portable electrical equipment is defined as any piece of equipment or item using electricity that has a plug, regardless of size or weight)

#### ***Electrical Appliance Testing***

- All electrical items that are classed as portable (have a plug, no matter how large) must have an in date PAT test sticker / report available for inspection,
- Any equipment not PAT tested will require testing by either the production's competent contractor, or by the studio,
- Any faulty items found, or items developing a fault during operation must be withdrawn from use and repaired and retested before further use

#### **Studio Information:**

All electrical supplies provided to production are subject to required electrical testing. All studios have electrical testing carried out every 5 years as a minimum and a maintenance and inspection regime is in place.

#### **Testing and Maintenance:**

All equipment is to be visually inspected before use and removed from service immediately if deemed unsafe.

BBC Studioworks ensures that all studio electrical equipment is regularly maintained in line with a schedule which is available below.

### Suggested initial intervals for checking electrical equipment

Type of business		User checks	Formal visual inspection	Combined inspection and test
Equipment hire		N/A	Before issue/after return	Before issue
Battery operated equipment (less than 40V)		No	No	No
Extra low voltage (less than 50 V ac), telephone equipment, low-voltage desk lights		No	No	No
Construction	110V equipment	Yes, weekly	Yes, monthly	Yes, before first use on site then 3-monthly
	230V equipment	Yes, daily/every shift	Yes, weekly	Yes, before first use on site then monthly
	Fixed RCDs	Yes, daily/every shift	Yes, weekly	Yes, before first use on site, then 3-monthly (portable RCDs – monthly)
	Equipment site offices	Yes, monthly	Yes, 6-monthly	Yes, before first use on site then yearly
Heavy industrial/high risk of equipment damage (not construction)		Yes, daily	Yes, weekly	Yes, 6–12 months

<b>Light industrial</b>	Yes	Yes, before initial use then 6-monthly	Yes, 6–12 months
<b>Office information technology rarely moved, e.g. desktop computers, photocopiers, fax machines</b>	No	Yes, 2–4 years	No if double insulated, otherwise up to 5 years
<b>Double insulated (Class II) equipment moved occasionally (not hand-held), e.g. fans, table lamps</b>	No	2–4 years	No
<b>Hand-held, double insulated (Class II) equipment, e.g. some floor cleaners, some kitchen equipment</b>	Yes	Yes, 6 months – 1 year	No
<b>Earthed (Class I) equipment, e.g. electric kettles, some floor cleaners</b>	Yes	Yes, 6 months – 1 year	Yes, 1–2 years
<b>Cables, leads and plugs connected to Class I equipment, extension leads and battery charging equipment</b>	Yes	Yes, 6 months – 4 years depending on type of equipment it is connected to	Yes, 1–5 years depending on the equipment it is connected to