# Electrical safety at places of entertainment

## Guidance Note GS50

**GS50 (Fourth edition) published 08/17**

This guidance outlines the main risks with electrical equipment used at places of entertainment and steps that can be taken to prevent electrical danger. It contains practical advice for dutyholders who are organising events and for those who provide venues and facilities for production crews and entertainers.

This fourth edition brings the content up to date and includes:

- changes to legislation and links to further guidance;
- updates to reflect current working practices, equipment and terminology.

# Introduction

1 Electricity can kill. This guidance note contains advice on preventing electrical danger and compliance with occupational health and safety law as it applies to electrical equipment used in entertainment workplaces.

2 The guidance contains practical advice for dutyholders organising events and for those who provide venues and facilities for production crews and entertainers. A separate leaflet covers risks to entertainers.[1]

3 The guidance is in three parts. Paragraphs 4–11 outline the risks and your legal duties. Paragraphs 12–20 give general advice on managing electrical safety. Paragraphs 21–60 give more specific advice on ways to prevent electrical danger.

# Risks

4 Most places of entertainment make use of electrically powered audio, lighting or other equipment. The main hazards of working with electricity are:

- electric shock and burns from contact with live parts;
- exposure to arcing;
- fire from faulty equipment or installations;
- separately powered equipment interconnected by a single cable, eg a separately powered amplifier and a sound effects box connected by a single cable;
- explosion caused by unsuitable electrical apparatus or static electricity igniting flammable vapours or dusts.

5 Electric shock is the result of current flowing through the body; the more current that flows, the greater the likelihood of harm. How much current flows through the body will depend on the shock voltage. Voltages in excess of 50 V alternating current (or 120 V direct current) should be regarded as dangerous even in cool, dry conditions.

6 Electric shock has a variety of effects on the human body (see Figure 1). Mild shocks cause an unpleasant tingling sensation; more severe ones cause muscle contractions, interfere with breathing and can upset the heartbeat; and severe shocks cause extensive burns and are usually fatal.

7 The risk of electric shock and burns may be increased because instruments and microphones are often hand-held and, if they become electrically live, the user is unable to let go.

# The law

8 Dutyholders must do all that is reasonably practicable to ensure that electrical installations and equipment used at places of entertainment are properly selected, installed and maintained so they don't cause death or injury.

9 Specifically, the Electricity at Work Regulations 1989 (EAW Regulations) apply to entertainment workplaces. HSE's *The Electricity at Work Regulations 1989. Guidance on Regulations*[2] will help dutyholders meet the requirements of the

Regulations. This guidance note supplements that publication with further advice on safe working practices.

10 Other health and safety legislation can also apply to electrical work. For more detail on the law and enforcement responsibilities, see HSE's website at www.hse.gov.uk.

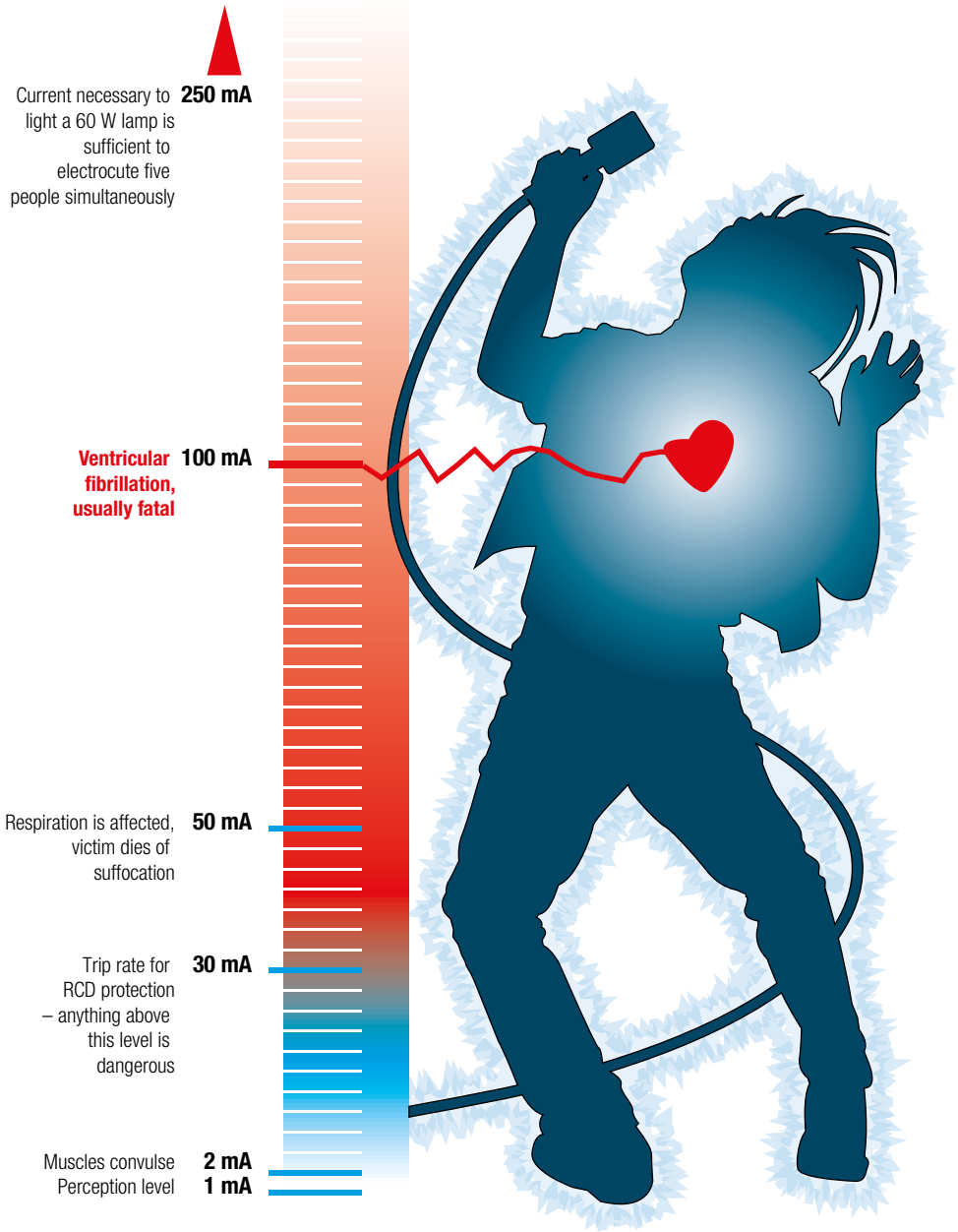


**Figure 1** Relative magnitude and effect of electric current

11 Some places of entertainment (including church and school halls adapted/used for events) require licenses under different legislation regulated by local authorities. Licences can include requirements for electrical safety, such as the use of residual current devices (RCDs). If in doubt, consult the local authority about the need for a licence and about any conditions that might apply.

# Managing electrical safety

12 You may already have the skills, knowledge and experience necessary to do electrical work safely. If not, you must seek specialist assistance. In the first instance, a competent electrical contractor should be able to give advice on electrical safety and should also be able to direct you to a suitable electrical engineer for advice about specialist areas.

13 It is important you take positive steps to manage electrical safety, not just react to accidents or situations as they occur. For example, equipment should not be left until a fault occurs – the aim is to prevent danger. If faults are not found until equipment is being set up for a performance, it may be too late to repair or replace it.

14 As part of managing the health and safety of your business, you must control the risks in your workplace including electrical risks. To do this you need to think about what might cause harm to people and decide whether you are taking reasonable steps to prevent that harm.

15 This is known as risk assessment and it is something dutyholders are required by law to carry out. If you have fewer than five employees you don't have to write anything down. Any record produced should be simple and focused on controls.

16 Risk assessment is about identifying and taking sensible and proportionate measures to control the risks in your workplace, not about creating huge amounts of paperwork. You are probably already taking steps to protect your employees and others who may be affected by your work activity, but your risk assessment will help you decide whether you should be doing more.

17 Think about how accidents could happen and concentrate on real risks – those that are most likely and which will cause the most harm. The following might help:

- Look closely at what might cause harm or injury (eg inadequate, incompatible, damaged, poorly installed electrical equipment or installations).
- Remember to consider the crew and others who might be affected, such as performers, staff and/or members of the public.
- Evaluate the risks and decide on precautions. Consider whether existing precautions are adequate. If they are not, decide what further reasonable practicable measures need to be taken to remove, reduce or control the risk (see sections below for guidance). Few workplaces stay the same, so it makes sense to review what you are doing on an ongoing basis.

More guidance on risk assessment can be found at www.hse.gov.uk/risk.

18 Following this planned approach will help you determine whether the electrical installation and equipment are safe, and whether you have taken all reasonable steps to control electrical danger.

19 Many risks can be controlled by implementing simple procedures to ensure safety. For example:

- ensure that the electrical installation as a whole is designed, installed and maintained and managed in accordance with BS 7909[3] and BS 7671[4];
- ensure only those who are competent are permitted to undertake electrical work on installations and equipment;
- ensure installations and equipment are properly insulated and correctly earthed;

- don't rely on other people's equipment being in a safe condition or properly connected – check before it is used;
- make appropriate use of RCDs (see Figure 2);
- don't use or connect incompatible items of equipment;
- ensure problems are dealt with in the right way;
- introduce a planned preventive maintenance programme for the electrical installation and equipment;
- carry out simple visual checks to ensure the electrical wiring and connections are in good condition;
- ensure maintenance, inspection, testing and repairs are only carried out by someone who is sufficiently competent for the work involved.

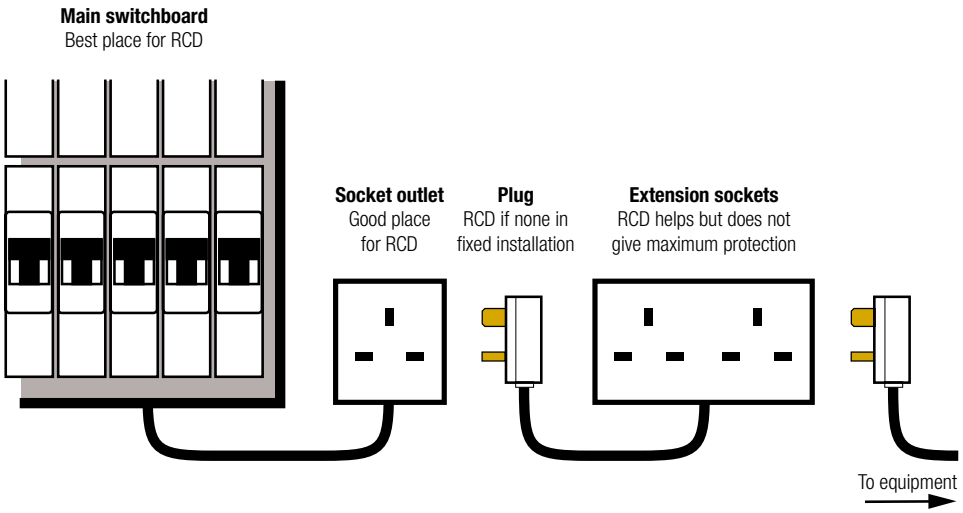


**Figure 2** Where should the RCD be?

20 Performers and touring companies may well bring electrical equipment of their own. Ensuring that equipment is connected and used safely requires close coordination and cooperation between everyone concerned.

# Preventing electrical danger

## Power supplies and power distribution

### *Fixed installations*

21 Fixed installations should have adequate provision for equipment to be connected, in terms of power (kW) and numbers of sockets. Indoor sockets will normally be of the 13 A type (to BS 1363). Where higher power requirements are likely to be needed, providing one or more industrial-type outlets to BS EN 60309 is recommended (these are typically rated 16 A, 32 A, 63 A or 125 A).

22 The primary means of protection against electric shock should be by adequate insulation and correct earthing of external metal parts. Take the following steps to help reduce the risk of electrical accidents:

- Don't bypass protective devices (such as circuit breakers or fuses) if the power supply does not meet the demand imposed by the lighting and sound installation. Provide sufficient power.

- Protect sockets intended to be used with portable electrical or electronic equipment or for instruments for use by performers by RCDs having a tripping current of 30 mA.
- Locate RCDs in readily accessible positions at the sub-circuit distribution board level to get maximum benefit (BS 7909 recommends that no more than six final circuits are protected by a single 30 mA RCD).
- Check with the person responsible for the premises whether the relevant circuits from the distribution board are RCD protected. If these are not already provided or the person is unsure about whether this protection is present, you can use an RCD-fitted plug or adaptor.
- If socket outlets with integral RCDs are used, ensure all sockets in the performers' area are protected.
- Only rely on a portable RCD adapter or RCD plug when there is no better alternative (they can easily be ignored or bypassed, but are better than nothing).
- Operate the RCD test button at least monthly and test it quarterly, eg in accordance with BS 7671.[4]
- If a 30 mA RCD trips, it is an indication that there is a fault. Do not ignore it.
- Equipment which causes an RCD to trip should be taken out of service until the fault is found and put right.

23 It is not essential for electrical supplies to indoor lighting to be RCD protected as, in some cases, it can lead to problems (see paragraphs 43–52). However, it should be considered where low-level lighting is moved during a performance.

24 The fixed electrical installation in a place of entertainment must be maintained to prevent danger. This can be achieved by having the installation inspected and maintained by a competent person at suitable intervals.

25 Frequency of the inspection/test will depend on the standard of the installation, its usage, age and condition, and the type of premises it is located in. Advice on this can be found in the Institution of Engineering and Technology (IET) *Guidance Note Number 3 to the Wiring Regulations*.[5] Keeping records will help show whether there is an increase or decrease in the number of faults found. This will help determine whether to increase or decrease the frequency.

26 Where there is a temporary supply for the duration of an event, you must take great care o see that the temporary arrangements are safe. Advice on temporary electrical installations can be found on HSE's website (www.hse.gov.uk/event-safety).

### *Independent supplies: generators*

27 Entertainers with large amounts of equipment will often need more power than is readily available locally and will therefore use power generation equipment. Some venues have no electrical supply and will also need power generation, usually by using mobile generators.

28 So far as is reasonably practicable, the generator must be maintained, correctly installed and adequately earthed by a competent person to prevent electrical danger.

29 If you are hiring the generator(s) you will have to arrange for a competent installer. If the equipment is being supplied by the entertainers, you should check they have someone competent to do this work.

30 You might also ask to see evidence that the equipment has been inspected and/or tested and confirmation that the earth electrode resistance test carried out on installation is satisfactory. The model forms in BS 7909 would be suitable evidence of a satisfactory system if completed appropriately.

31 It should not be possible to connect the generator(s) in parallel with the public supply system, unless written agreement has been reached with the electricity supplier,[6] who will set out the necessary arrangements for you to ensure safe connection.

32 If there is more than one generator and they are to be operated in parallel, the system should be designed so that the load is shared between them.

33 Unless the generator is supplying only double insulated equipment within a few metres of itself, there is a risk that a fault in the equipment, the cables or the generator could cause the equipment casing to become live without blowing the fuse or tripping any circuit breakers. To avoid this, one point (usually the neutral or star point) of the generator output circuit should be earthed, and bonded to the structural steelwork of the building and any scaffolding etc which may carry electrical equipment.

34 Generating sets should usually have their own means of earthing. Don't rely on the earthing arrangements of an installation in a building. Depending on the use, it may be necessary to connect the main earthing arrangements of a building to that of the generator for safety, but not as the means of earthing. BS 7909 contains guidance in this area. The earth resistance must be low enough for the earth fault protection to operate reliably. It is strongly recommended that it is tested by the electrician who installs the generator. Keeping a record of this test is a good idea. It can be used as a management tool when ensuring all safety checks have been made before a performance begins.

35 The conductors connected to earth or neutral should not have single pole fuses or switches in them. Pay particular attention to connections to the earth and neutral conductors, as accidental disconnection of either or both of them may not be immediately obvious (eg by the equipment failing to work).

36 RCDs in the distribution will provide additional protection but ensure that discrimination is effective by using appropriate settings on devices. For example, a faulty appliance connected to a socket on the stage should operate the 30 mA RCD protecting that socket, not the 300 mA RCD on the output of the generator. However, seek the manufacturer's advice before installing an RCD where there is vibration, such as on a generator.

37 If single-core cables are used, the electrical installation should be carried out by someone with suitable technical knowledge and experience. Single-core, heavy current cables should be insulated for the voltage in use and adequately protected against mechanical damage. Steel armoured, single-core cables should not be used (induced currents in the armouring can cause the cable to overheat). Don't use welding cable as it is not adequately insulated. Plugs and sockets for single-core cables should be arranged so that there is no risk of contact with bare live parts, even with a plug withdrawn.

38 To prevent contact with live parts, connection panels should:

- be locked (accessible only to a responsible person); or
- interlocked, so that they disconnect the power before/as they are opened.

### *110–125 V supplies*

39 Some types of equipment, including much from the USA, may be designed only to work on supply voltages in the range of 110 to 125 V. To operate such equipment safely, it should only be supplied through a double wound (isolating) transformer (see Figure 3). A single winding auto-transformer should not be used. This is because the output of an auto-transformer may provide 110 V to the equipment, but it is still 230 V above earth potential. The equipment is unlikely to have been designed to operate in this way.

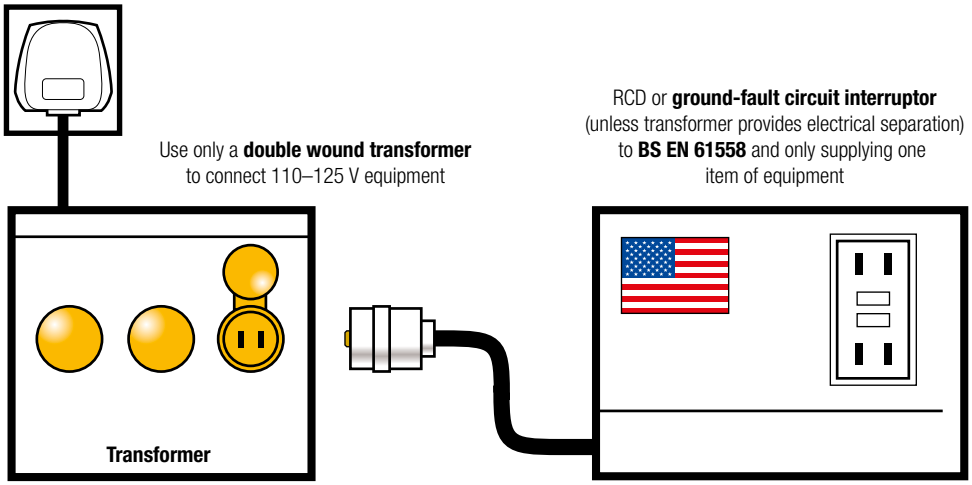


**Figure 3** 110–125 V American equipment

40 Though the voltages are lower, those over 50 AC should still be treated as lethal (see paragraphs 5–7). The following precautions will help to reduce the risk:

- Unless the transformer is a safety-isolating transformer to BS EN 61558[7] (or IEC 742), the neutral of the output circuit must be efficiently connected to an effective earth – this may be the protective (earth) conductor of the 230 V mains supply, or a good earth rod.
- The earthing conductor should be at least as large as the phase and neutral conductors of the primary circuit. If a 'signal clean' earth is also being used for electrical protection, it must be tested as being suitable for this purpose.
- Safety isolating transformers (to BS EN 61558 or IEC 742) having a secondary circuit which is unearthed should only supply one item of equipment.
- Where the transformer secondary has been earthed, fit an RCD (known in the USA as a ground fault circuit interruptor) in the secondary circuit. Do not use RCDs designed for UK installations on the output of transformer proving a 110 V supply as they are not generally designed to operate at such low voltages. The operating voltage should be marked on the RCD, but if in doubt consult the manufacturer or supplier.
- The transformer output(s) should also have overcurrent protection (fuses or, preferably, circuit breakers).
- Standard 230 V plugs should not be used on lower-voltage equipment because of the danger of wrong connection.
- 120 V lamps should not be used in series on a 230 V supply unless the light fittings are designed for 230 V operation.
- If in doubt, seek the advice of a competent person.

## Equipment

### *General*

41 Most electrical equipment is either housed in a box with metal panels, which are intended to be earthed (Class I), or housed in an electrically insulated box (Class II – double insulated, and likely to be marked with the symbol in Figure 4). With Class I equipment the metal panels are earthed to ensure the fuse blows if certain faults occur, eg if the mains wiring makes contact with the panels. If the earth is removed or disconnected the metal panels may become live. Anyone who touches them could receive a serious electric shock and/or the equipment may be seriously damaged.

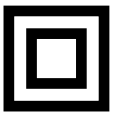

**Figure 4** Symbol for double-insulated equipment

42 If an insulation failure leads to dangerous earth leakage currents flow, a correctly rated and installed RCD should detect this and trip the circuit. If a 30 mA RCD trips it is an indication there is a fault. Do not ignore it. Take the equipment out of service until the fault is found and put right.

### *Lighting systems*

43 The industry tends to use 15 A, three-round-pin plugs and sockets to BS 546, a type which is generally regarded as old fashioned in other applications, but is satisfactory for this purpose. High-power lights, eg 5 kW follow spots, need higher power sockets, usually 32 A industrial-type to IEC 309 (previously BS 4343, now BS EN 60309).[8]

44 For new installations or when replacing old equipment, it is recommended that plugs and sockets to BS EN 60309 are used. These have better cord grips, are often tougher, and cost less.

45 Power cables from the lighting booms to the dimmer cabinet or control position should be suitably flexible and protect against abrasion or other mechanical damage. If there is any risk of the cable being affected by the heat from the lamps, it should be of a heat-resisting type or suitably protected against the effects of heat.

46 Any plugs and sockets used should also be adequate in terms of voltage, current ratings and conductivity – the protective earth connection is particularly important.

47 The following precautions will help to reduce the risk of electrical accidents involving lighting (see Figure 5):

- Lighting circuits (even if the connection is by a plug and socket) should be kept separate from circuits which will be used for audio equipment.
- The hoists for lighting bars and booms should normally be supplied by a separate circuit.
- Flexible cables should be properly secured in a cable grip at the plug or termination.
- Light fittings and other electrical equipment should not be suspended from flexible cable alone. Suitable load-bearing support should be provided by wires or other means
- Lighting rigs should be out of reach of untrained people and the audience (unless designed specifically for use at low level).

- The metalwork of individual light fittings should be adequately connected to the protective earth conductor.
- Scaffolding, metal frameworks, bars and booms on which electrical equipment is fixed should be suitably earthed.
- If earthing connections are looped, the conductor size should be adequate throughout its length.
- Older lighting installations were typically connected to two or three phases of the electrical supply, using separate dimmer cubicles on different phases to avoid confusion. In these situations, only a single phase should be connected to any one boom.
- Modern proprietary equipment such as specifically designed three-phase dimmer units are available. Such equipment should be CE marked to show compliance with the Essential Health and Safety Requirements of the Electrical Equipment (Safety) Regulations 1994 (also known as the Low Voltage Directive).[9]
- The connections from the individual light fitting to the boom should be by plug and socket.

48 All the exterior metalwork of the dimmer racks or cabinets, patchbays, booms and light fittings should be earthed as required by the manufacturer's instructions for use. Dimmers should have RCD protection (typically one RCD protecting six channels) although you should ensure that discrimination is effective and there is no unwanted operation. See also paragraph 36.

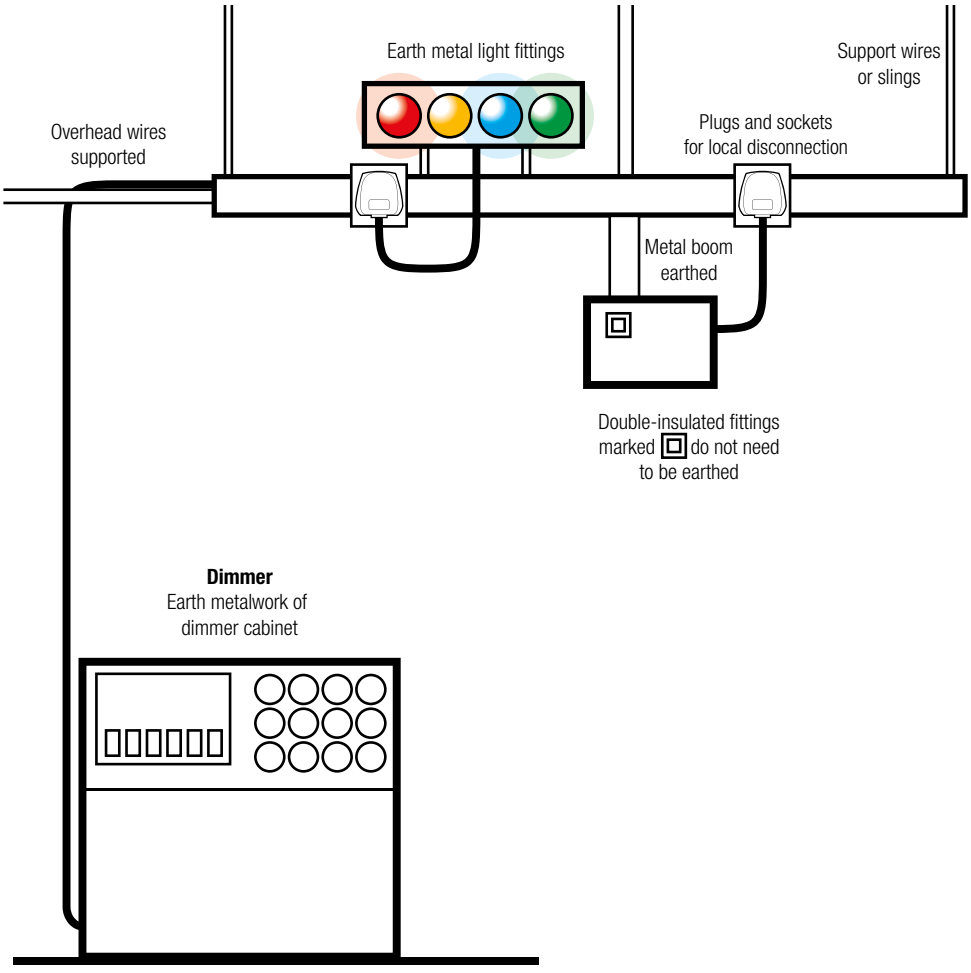


**Figure 5** Indoor lighting: points to watch

49 Some types of lighting dimmer control have a relatively high earth leakage, so if sensitive residual current protection is fitted to the lighting circuits it will often be necessary to fit a number of RCDs (at sub-circuit level) rather than a single overall RCD. A single RCD might trip frequently. A single RCD also has the added disadvantage that all the lights will go off at once if it trips, resulting in increased risks of slips, trips and falls in the dark.

50 RCDs may not always be appropriate for lighting circuits. Some types of dimmer control have a relatively high electrical leakage which may cause unwanted tripping when a number of units are fed from one RCD. Other dimmers produce a direct current which can prevent some types of RCD operating correctly.

51 Some manufacturers offer RCD protection as an option on the supply side to the dimmer equipment. It might be tempting to put an RCD on the secondary (output) side of a dimmer to give additional protection to a lighting rig, particularly where it is positioned at low level. However, some RCDs which contain electronic components do not operate satisfactorily at voltages much lower than 230 V so the additional protection may be ineffective. If in doubt, check with the equipment manufacturer (or supplier) and with the RCD manufacturer.

52 Some lasers, strobes and other high-intensity lighting use high voltages internally. It is therefore particularly important that they are in good condition and, where necessary, properly earthed. Setting up such equipment is a job normally carried out by specialists.

### *Sound systems*

53 Sometimes it may be necessary to site a mixing desk at some distance from the power amplifiers, interlinked by multi-core signal cables. Microphones etc may have their own power supply (not phantom-powered from the mixing desk). The output terminals of amplifiers, the wiring to loudspeakers and the connectors on loudspeakers may carry dangerous voltages. Wiring with adequate insulation should be used, and any connectors should be safe for use at that voltage and current.

54 Audio equipment should, if properly maintained, present few problems. However, when a number of items are used close together, or are interconnected, problems can occur, such as ‘mains hum’, often caused by multiple earth paths. The following precautions will help to avoid such problems and ensure that equipment is used safely:

- Mains-powered equipment should either be double insulated (the equipment is likely to be marked) or correctly fitted with a protective earth.
- If there is any doubt about the mains connections of equipment consult a competent person.
- If a buzzing noise occurs on the system (‘mains hum’) do not remove protective earth connections.
- Properly designed equipment should not cause hum, although in some cases it may be necessary to disconnect the screen at one end (only) of interconnecting audio cables.
- When buying or renting new equipment consult the supplier about hum (some equipment has a facility for disconnecting the ‘signal’ earth from the protective earth without affecting safety).

55 Many electrical accidents, including fires caused by equipment being incorrectly used or faulty, can be readily prevented by taking simple precautions, such as ensuring that:

- **live, neutral and earth connections are connected to the right terminals on extension leads (if not, the equipment may work but may also be lethal);**
- damaged leads are taken out of service at once and replaced or repaired;
- extension leads are fully unwound from the drum to avoid overheating;
- outer cases of equipment are correctly earthed;
- multiple socket distribution boards are used instead of plug-in multiple adapters;
- correct fuses are used in 13 A plugs (never bypass or replace with wire, silver paper or a nail);
- ventilation is not blocked around high-power amplifiers (this can cause overheating).

### *Maintenance*

56 Electrical equipment can be damaged as it is moved from place to place. Ensure all electrical equipment, including extension boxes and cables, is regularly checked by the user. As a general guide, user checks should include a visual inspection of the equipment, preferably before using it at a new location or when it is taken out of service for storage. If there is damage to any electrical part or if it causes an RCD to trip, it should be taken out of service at once and replaced, or repaired by a competent person.

57 Typical routine checks for portable apparatus are shown in the checklist in Appendix 1 of this leaflet.

58 Regular electrical tests by a competent person may also be appropriate. These will detect the faults that cannot be seen at inspection, such as lack of continuous earth. Electrical testing every month would be reasonable until a suitable interval can be determined based on risk.

59 While there is no requirement in law, a suitable log is useful as a management tool for monitoring and reviewing the effectiveness of a maintenance plan. Dutyholders with large amounts of equipment may also find it useful to label equipment to indicate that the equipment has been tested satisfactorily, ie has been passed as safe, and when it was tested.

60 You can find more advice on in-service inspection and testing in the HSE publication *Maintaining portable electrical equipment* (HSG107)[10] and the Institution of Engineering and Technology's (IET's) *Code of practice for in-service inspection and testing of electrical equipment*[11].

# Appendix 1: Checklist for portable apparatus

Here are typical routine electrical checks for portable apparatus. This checklist is only intended as a guide; certain apparatus may need different or additional inspections and tests. The checks should be carried out by a suitably competent person.

| **Equipment:** | | |
|---|---|---|
| Make | Model | Serial number |
| **User inspection:** With equipment disconnected | | |
| *Item* | *What to look for* | *Pass condition* |
| 1 Mains plug | Check for broken casing, and cable properly clamped | No cracks in plug casing. No damage allowing contact with plug internal connections. Cable clamped securely by outer sheath, no inner insulation visible |
| 2 Mains lead | Check for cuts, splits and crush damage | No inner (coloured brown, blue or green/ yellow) insulation visible; no bulges in cable, no kinks or twists or taped up joints |
| 3(a) Equipment connector (or) | Check for broken casing on equip-ment and cable connectors. Check cable clamp | No cracks in plug or socket casing. No damage allowing contact with plug or socket internal connections. Cable clamped securely by outer sheath, no inner insulation visible |
| 3(b) Equipment cable entry | Check grommet or clamp still there. Check cable clamp | No sharp edges on contact with cable. Cable clamped securely. No inner insulation visible |
| 4 Mains on/off switch, voltage selector switch, fuse holders etc | Check for broken insulation | No cracked insulation, no loose parts, no parts missing |
| 5 Equipment housing | Check for general condition. Check for loose parts inside | No holes (large enough to put a finger in) close to mains cable or switches. No rattles when you tilt it a quarter of a turn |

# References

1 *Electrical safety for entertainers* Leaflet INDG247(rev1) HSE Books 2013 www.hse.gov.uk/pubns/indg247.htm

2 *The Electricity at Work Regulations 1989. Guidance on Regulations* HSR25 (Third edition) HSE Books 2015 www.hse.gov.uk/pubns/books/hsr25.htm

3 BS 7909 *Code of practice for temporary electrical systems for entertainment purposes* British Standards Institution

4 BS 7671 *Requirements for electrical installations (IET Wiring Regulations, Seventeenth edition)* Institution of Engineering and Technology

5 *Guidance Note Number 3, Fifth edition to the 17th Edition of the Wiring Regulations* Institution of Engineering and Technology www.theiet.org

6 *Recommendations for the connection of generating plant to the distribution systems of Licensed Distribution Network Operators* G59/2 Energy Networks Association 2010 www.energynetworks.org

7 BS EN 61558 *Safety of transformers, reactors, power supply units and combinations thereof. Particular requirements and tests for separating transformers with high insulation level and separating transformers with output voltages exceeding 1000 V* British Standards Institution

8 BS EN 60309 IEC 60309 *Plugs, socket-outlets and couplers for industrial purposes. Dimensional interchangeability requirements for pin and contact-tube accessories* British Standards Institution

9 *Essential Health and Safety Requirements of the Electrical Equipment (Safety) Regulations 1994 (the Low Voltage Directive)* www.legislation.gov.uk

10 *Maintaining portable electrical equipment* HSG107 (Third edition) HSE Books 2013 www.hse.gov.uk/pubns/books/hsg107.htm

11 IET *Code of practice for in-service inspection and testing of electrical equipment* Institution of Engineering and Technology (IET) www.theiet.org

## Further reading

*Technical Standards for Places of Entertainment* Association of British Theatre Technicians, The Chartered Institute of Environmental Health, the District Surveyors Association and the Institute of Licensing www.abtt.org.uk

*Temporary Power Systems: A guide to the application of BS 7671 and BS 7909 for temporary events* Institution of Engineering and Technology (IET) www.theiet.org

# Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

British Standards can be obtained in PDF or hard copy formats from BSI: http://shop.bsigroup.com or by contacting BSI Customer Services for hard copies only Tel: 0845 086 9001 email: cservices@bsigroup.com.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

This leaflet is available at: www.hse.gov.uk/pubns/gs50.htm.