

BS 7909:2023



BSI Standards Publication

**Temporary electrical systems for
entertainment and related purposes —
Code of Practice**

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Summary of pages

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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 January 2023. It was prepared by Technical Committee CPW/4, *British Standards for imaging*. A list of organizations represented on this committee can be obtained on request to the committee manager.

Supersession

This British Standard supersedes BS 7909:2011, which is withdrawn.

Relationship with other publications

This British Standard is intended to be read in conjunction with BS 7671, and it expects temporary electrical systems to adhere to its fundamental principles.

Information about this document

This is a full revision, incorporating changes resulting from the changes made to BS 7671:2018+A2:2022. Some changes have been made to correct typographic issues, however substantive changes include:

- updates to the referenced standards with the latest editions as required and removed dated references to standards where not necessary;
- updated the information on the use of RCDs in [Annex E](#);
- changed the terms “bypass” and “disable” in relation to the operation of RCDs to “override” to better reflect the technical meaning;
- greater emphasis has been placed on planning and provision of supplies for an event (see [4.4](#));
- a new Annex has been added to provide more background information on power quality symptoms and causes;
- the facility to override RCDs in FDUs has been removed from [Annex B](#);
- the use of thermoplastic “SY” and “YY” cables has been clarified; and
- a new section with requirements for battery storage systems has been included.

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It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately knowledgeable and experienced people, for whose use it has been produced.

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Presentational conventions

The provisions in this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is “should”.

Commentary, explanation and general informative material is presented in smaller italic type and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

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0 Introduction

This British Standard deals with the creation and operation of temporary electrical distributions and systems. Although the target market is the events, entertainment and other related industries, the requirements within this British Standard are also of value to those working in other industries where temporary electrical systems are deployed.

With temporary electrical systems, the range of electrical equipment involved is broad and is frequently supplied by a variety of specialist facilities and services providers under separate hire agreements.

The staff for such events bring a considerable range of skills; they might be employees of the facilities and services providers, or sole traders or freelance people hired under varied and separate agreements. Each event brings together different facilities and people and requires management arrangements to be in place and understood. [Clause 4](#) of this British Standard outlines the management arrangements and expects the appointment of a person responsible for the temporary electrical system(s) in use to be created for the event.

The person(s) responsible for the temporary electrical system needs to understand the equipment and procedures developed for such events as these differ considerably from those used for permanent installations. It is important to recognize these differences and the need for the safety guidance recommended. The electrical supplies required range from that available from a domestic socket-outlet, to significantly larger supplies obtained from direct connection to public or private electricity suppliers' systems or from mobile generating sets.

Considerations of portability limit the size and weight of units, and time and other constraints prevent the use of conventional fixing methods. Tight schedules, adverse environmental conditions and late changes of plan are routine problems. The reusable equipment developed for these circumstances is accepted as providing proper standards of safety if used correctly and this British Standard is intended to provide overall guidance for these circumstances.

There is a huge variety of events and activities in the entertainment and related industries, ranging from very simple to highly complex that require the use of temporary electrical systems. The main body of the standard gives recommendations for all temporary electrical systems; [Clause 5](#) deals with the simpler temporary systems only.

The principal clauses each deal with a different aspect of work; many contain references to other clauses or BS 7671 that have a direct bearing on the detail being considered.

1 Scope

This British Standard gives recommendations for the management, design, setting up and operation of temporary electrical systems using low voltage electricity, for the entertainment and similar or related industries. Mobile and transportable units with electrical installations that are used in these industries are also covered.

This British Standard gives recommendations for the provision of a safe and suitable temporary electrical system for an event and the duties and work to implement this.

NOTE 1 Each aspect of the work could be under the control of a different person responsible.

This British Standard gives guidance on matters of common interest to producers, production companies, event organizers and managers, freelancers, facilities and services hire companies, equipment hire companies, equipment manufacturers, electrical consultants, electrical

installation contractors, distributors, suppliers of electricity, venues, local authorities and those responsible for safety.

The systems covered by this British Standard operate at low voltage, as defined in BS 7671. Electricity at low voltage can be taken from an existing installed electrical system, the public supply, privately owned supplies or from mobile or portable generators.

NOTE 2 All equipment forming the temporary electrical system is expected to be delivered to site as pre-assembled units that have been tested and are known to be safe and suitable for use. This does not preclude the manufacture on site of simple units that might be necessary; though this is the exception and not the rule.

NOTE 3 It is expected that all electrical equipment, switchgear units, distribution units and cables used for work covered by this British Standard are manufactured to the appropriate product standards (e.g. BS EN 61439), and that the temporary electrical systems and their use are designed, set-up, supervised, operated and removed by suitably competent persons. It is also expected that responsibility for such temporary electrical systems is taken by a suitably competent person (referred to as the person responsible in this British Standard).

NOTE 4 In many situations temporary electrical distributions are intimately associated with mobile and transportable units. In such cases, see BS 7671 and in particular Section 717, for further information.

NOTE 5 This British Standard can be applied to temporary electrical distributions at exhibitions and fairs; see BS 7671 and, in particular, Sections 711 and 740 respectively for specific information for these activities. Specialized documents related to exhibitions are published by the Association of Event Venues [1].

NOTE 6 Specialized documents related to theatres and places of entertainment are published by the Association of British Theatre Technicians [2].

NOTE 7 This British Standard does not offer guidance for hazardous locations where expert advice needs to be sought.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this document¹⁾. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Standards publications

[BS 546](#), Specification – Two-pole and earthing-pin plugs, socket-outlets and socket-outlet adaptors

BS 1363 (all parts), 13A plugs, socket-outlets, adaptors and connection units

[BS 5266-1](#), Emergency lighting – Part 1: Code of practice for the emergency lighting of premises

[BS 5499-10](#), Guidance for the selection and use of safety signs and fire safety notices

[BS 7775](#), Distribution of electricity on construction and demolition sites – Code of practice

[BS 7130](#), Code of practice for protective earthing of electrical installations

[BS 7671](#), Requirements for electrical installations – IET Wiring Regulations

BS EN 12193, Light and lighting – Sports lighting

BS EN 50172, Emergency escape lighting systems

[BS EN 50525](#), Electric cables – Low voltage energy cables of rated voltages up to and including 450/750 V (U₀/U)

BS EN 60309 (all parts), Plugs, socket-outlets and couplers for industrial purposes

¹⁾ Documents that are referred to solely in an informative manner are listed in the Bibliography.