

BS 6701:2016+A1:2017



BSI Standards Publication

# Telecommunications equipment and telecommunications cabling –

Specification for installation, operation and maintenance

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# Contents

	<b>Page</b>
<b>Foreword</b>	<b>ii</b>
1 Scope	1
2 Normative references	1
3 Terms, definitions and abbreviations	2
4 Requirements for owners of premises housing telecommunications systems	3
4.1 General	3
4.2 Operating procedures	4
4.3 Maintenance	4
4.4 Repair	5
5 Requirements for installers of telecommunications equipment and telecommunications cabling	5
5.1 General	5
5.2 Earthing	6
5.3 Power supplies	8
5.4 Telecommunications cabling	8
<b>Annex A</b> (informative) <b>Remote powering</b>	<b>10</b>
<b>Bibliography</b>	<b>11</b>

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## Summary of pages

This document comprises a front cover, and inside front cover, pages i to iv, pages 1 to 11, an inside back cover and a back cover.

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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 July 2016. It was prepared by Subcommittee TCT/7/2, *Telecommunications; Installation requirements: Cabling installation and UK implementation*, under the authority of Technical Committee TCT/7, *Telecommunications – Installation requirements*. A list of organizations represented on these committees can be obtained on request to their secretary.

## Supersession

BS 6701:2016 superseded BS 6701:2010, which has been withdrawn.

BS 6701:2016+A1:2017 supersedes BS 6701:2016, which is withdrawn.

## Information about this document

BS 6701:2016 was a full revision of BS 6701 and was published to support BS EN 50174-1:2009+A2:2014, BS EN 50174-2:2009+A2:2014 and BS EN 50174-3:2013 which contained text that was previously in BS 6701:2010. It should be read in conjunction with the BS EN 50174 series of standards. It also contains information regarding the use of telecommunications cabling for the powering of telecommunications and other equipment.

Unless otherwise stated in this standard, voltages and currents are r.m.s. with a nominal frequency of 50 Hz.

Text introduced or altered by Amendment No. 1 is indicated in the text by tags A1 A1. Minor editorial changes are not tagged.

Key changes in this amendment are related to the implementation of the Construction Products Regulation for Reaction to Fire of cables.

This amendment applies the existing general requirements of BS 7671 for cables in evacuation routes to all “permanently installed” telecommunications cables and translates those requirements into the terminology of the Construction Products Regulation.

This in turn leads to the definition of an “installation cable” (as opposed to “user administrated” cables such as those in patch cords or work area cords).

The use of space in modern buildings tends to change with time and it is increasingly difficult to predict which spaces will become evacuation routes. With a cabling system having a design life exceeding 15 years the common sense approach is to assume everywhere is, or could become, an evacuation route and cable accordingly.

Further guidance on the Reaction to Fire of cabling systems and related products can be found in BS 8492:2017.

## Hazard warnings

**WARNING.** This British Standard calls for the use of substances and/or procedures that might be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

### **Use of this document**

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

The requirements contained within [Clause 4](#) are primarily for owners of premises housing telecommunications systems, who may delegate selected responsibilities to designers, specifiers, operators and maintainers of installed telecommunications equipment and telecommunications cabling.

The requirements contained within [Clause 5](#) are primarily for the installers of telecommunications equipment and telecommunications cabling.

Users of this British Standard should ensure that they are reading the clause appropriate to their responsibilities.

### **Presentational conventions**

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

*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”).

### **Contractual and legal considerations**

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

### **Compliance with a British Standard cannot confer immunity from legal obligations.**

Particular attention is drawn to the following statutory regulations:

- Electromagnetic Compatibility Regulations 2006 [\[1\]](#);
- Electrical Equipment (Safety) Regulations 1994 [\[2\]](#);
- Provision and Use of Work Equipment Regulations 1998 [\[3\]](#); and
- Work at Height Regulations 2005, as amended [\[4\]](#).



## 1 Scope

This British Standard specifies requirements for the installation, operation, administration and maintenance of telecommunications equipment and telecommunications cabling, other than cabling specified in BS EN 50174. It also specifies requirements beyond the scope of the BS EN 50174 series of standards for telecommunications equipment.

It does not cover those aspects of installation that are associated with the transmission of signals in free space between transmitters, receivers or their associated antenna systems (e.g. radio, microwave or satellite).

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 5306 (all parts), *Code of practice for fire extinguishing installations and equipment on premises*

BS 7671, *Requirements for electrical installations — IET Wiring Regulations — Seventeenth edition*

**BS EN 13501-6**, *Fire classification of construction products and building elements – Part 6: Classification using data from reaction to fire tests on electric cables* **A1**

BS EN 50174-1:2009+A2:2014, *Information technology — Cabling installation — Part 1: Installation specification and quality assurance*

BS EN 50174-2:2009+A2:2014, *Information technology — Cabling installation — Part 2: Installation planning and practices inside buildings*

BS EN 50174-3, *Information technology — Cabling installation — Part 3: Installation planning and practices outside buildings*

BS EN 50310, *Application of equipotential bonding and earthing in buildings with information technology equipment*

BS EN 60079-14, *Explosive atmospheres — Part 14: Electrical installations design, selection and erection*

BS EN 60079-17, *Explosive atmospheres — Part 17: Electrical installations inspection and maintenance*

**BS EN 60332-1-2**, *Tests on electric and optical fibre cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame* **A1**

BS EN 60446, *Basic and safety principles for man-machine interface, marking and identification — Identification of conductors by colours or alphanumerics*

BS EN 60825-2, *Safety of laser products — Part 2: Safety of optical fibre communication systems (OFCS)*

BS EN 61241-14, *Electrical apparatus for use in the presence of combustible dust — Part 14: Selection and installation*

BS EN 61241-17, *Electrical apparatus for use in the presence of combustible dust — Part 17: Inspection and maintenance of electrical installations in hazardous areas (other than mines)*

BS EN 61340-5-1, *Electrostatics — Part 5-1: Protection of electronic devices from electrostatic phenomena — General requirements*