Electrical Safety Professional

POCKET GUIDE

BS 7671:2018 + A4:2026 AND DOMESTIC INSTALLATIONS

What has changed and why it matters

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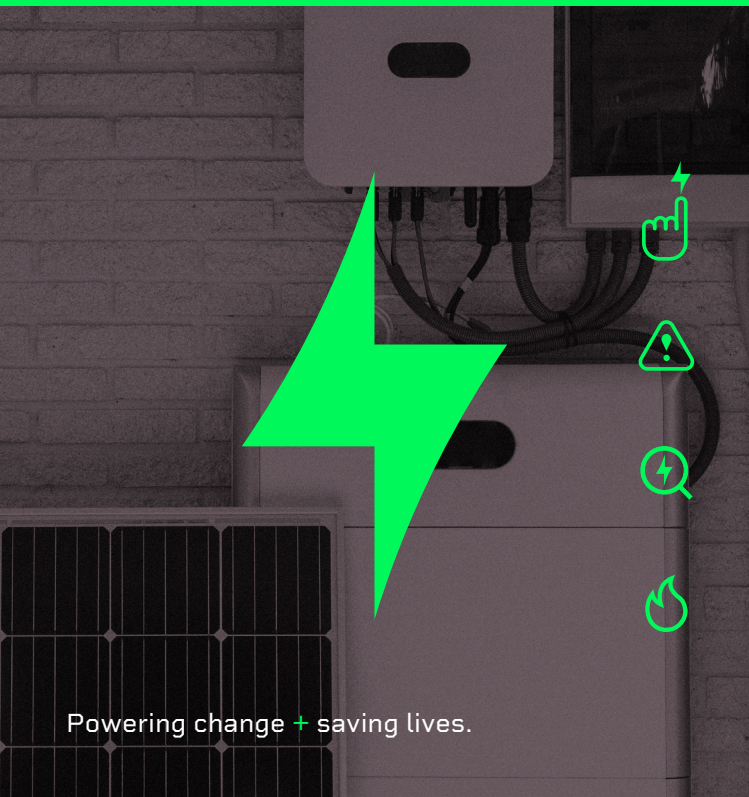

Powering change + saving lives.

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1.0 INTRODUCTION, SCOPE & LEGAL CONTEXT

PURPOSE OF THIS POCKET GUIDE

This guide highlights the changes in Amendment 4 that are most likely to affect domestic installations. It is intended to provide valuable information for designers, installers, and inspectors by explaining what has changed and why it matters in practice. It does not replace BS 7671, manufacturer instructions, or engineering judgement

INTRODUCTION TO BS 7671:2018 + A4:2026

Amendment 4 reflects the rapid change in how electricity is generated, stored, and used in homes. Domestic installations now commonly include EV charging, battery storage, PV systems, and ICT infrastructure, all of which introduce new risks and design considerations. The updates included in Amendment 4 BS 7671 better reflect these.

CONTRACTUAL AND LEGAL CONSIDERATIONS

BS 7671 is not law, but it is widely used to demonstrate compliance with legal duties under the Electricity at Work Regulations and Building Regulations. Amendment 4 increases the importance of clearly defining the scope of work, design responsibility, and assumptions made about the installation.

Historically, it was commonly assumed that where an installation had been designed before the withdrawal date of a standard, the work could continue to be installed after that date. However, there was limited clarity on how this should be applied in practice, which in some cases resulted in installations being carried out long after the standard had been withdrawn.

It is now made clear that the withdrawal of a standard renders it no longer applicable. In practice, this can present challenges for long-running projects, where redesign or reassessment might be costly and complex. In such cases, contractual agreements may be used to define and manage an appropriate level of practical flexibility.

CONSTITUTION

JPEL/64 is the UK joint BSI / IET committee responsible for the development and maintenance of BS 7671, bringing together a balanced range of committee experts to provide transparent, consensus-based technical contribution and to support the adoption of internationally developed CENELEC standards.

THE STRUCTURE OF BS 7671

BS 7671 is structured to clearly distinguish between the actual requirements (known as normative) and supporting information, helping users understand what must be done and how the requirements are applied in practice.

NORMATIVE REQUIREMENTS

- Parts 1 to 7 form the normative core of BS 7671. Where the word “shall” is used, the requirement is normative.
- Part 1 sets the scope and fundamental safety principles.
- Part 2 provides definitions essential for correct interpretation.
- Part 3 requires assessment of supply characteristics, external influences, compatibility, maintainability, and future use.
- Part 4 covers protection for safety, including electric shock, thermal effects, and overcurrent.
- Part 5 sets requirements for the selection and erection of suitable equipment.
- Part 6 specifies inspection and testing for new work and alterations.
- Part 7 contains additional or modified requirements for special installations or locations and supplements or modifies Parts 1–6.

INFORMATIVE MATERIAL

Appendices, along with informative tables, notes and figures, provide guidance and examples to support good practice but do not contain mandatory requirements unless specifically referenced..

AMENDMENTS

Updates to BS 7671 are required to keep the Wiring Regulations current and relevant as technologies, installation practices, and associated risks evolve. They also allow the UK to adopt the technical intent of CENELEC harmonised standards, maintaining alignment with European safety principles while allowing for national application where appropriate.

USING BS 7671

Compliance with BS 7671 requires meeting the normative requirements of Parts 1–7, supported by engineering judgement and the use of informative material where appropriate. Compliance supports electrical safety but does not remove the need to comply with statutory requirements, including the Electricity at Work Regulations.

2.0 KEY CHANGES IN BS 7671

DEFINITIONS (PART 2)

Part 2 definitions have been expanded and modified to reflect new technologies and installation practices. Installers should be aware that familiar terms are often updated to have more precise meanings and relying on informal or historic interpretations can lead to incorrect design or installation decisions.

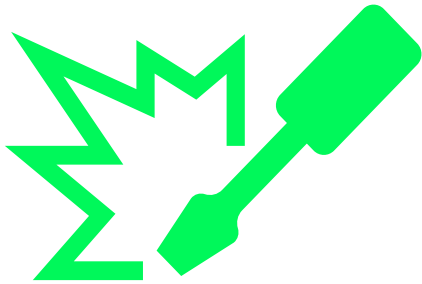
3.0 SUPPLY CHARACTERISTICS, EARTHING & INSTALLATION STRUCTURE

PROTECTIVE NEUTRAL BONDING (PNB) (REGULATION 312.2.1.1)

Amendment 4 introduces requirements and figures relating to Protective Neutral Bonding (PNB). Installers must be able to recognise PNB supplies and understand how they differ from PME, as this can affect earthing arrangements, risk assessment, and the suitability of certain equipment.

STRUCTURE OF MODERN DOMESTIC INSTALLATIONS

Many homes now include multiple sources of supply, such as grid connection, solar PV systems, electric vehicles, and battery storage. These installations may also allow bidirectional energy flow and islanding mode. Early decisions about earthing, protection, and system layout can therefore have implications across the entire installation.



4.0 FIRE SAFETY, THERMAL EFFECTS & ESCAPE ROUTES

HIGHER-RISK BUILDINGS (REGULATION 421.1.7)

Regulation 421.1.7 now refers to "higher-risk buildings," as defined by the Building Safety Act 2022 and associated regulations. While most single domestic dwellings do not fall into this category, designers and installers need to understand where the boundary lies, particularly in multi-occupancy residential buildings.

PROTECTED ESCAPE ROUTES (REGULATIONS 422.2 AND 422.2.1)

The requirements for cables in protected escape routes have been clarified. Certain cables meeting the requirements of Regulation 422.2.1 may now be installed within protected corridors. In addition, cables installed within a fire-resisting enclosure are deemed to be outside the protected escape route. The latter essentially permits wiring systems to be installed in protected escape routes where it was previously implied that this was not permitted.

PRACTICAL DOMESTIC IMPLICATIONS

These changes are particularly relevant to flats, House in Multiple Occupation (HMO)s, and converted houses where escape routes are shared. Installers must ensure that cable selection and routing align with the fire strategy for the building and any guidance provided by the fire engineer.

5.0 PROTECTION, COORDINATION & WIRING SYSTEMS

FAULT CURRENT PROTECTION (REGULATION 434.2)

Regulation 434.2 has been redrafted to clarify the requirements for protection against fault current. The separation of overload and fault protection emphasises that these are distinct design considerations and might require different protective measures.

COORDINATION WITH ASSEMBLIES (REGULATION 536.4.202)

Regulation 536.4.202 now addresses coordination between low-voltage switchgear and controlgear assemblies and overload protective devices. Load curtailment is introduced as one of the conditions that may be used to satisfy coordination requirements, reflecting modern energy management practices.

WIRING SYSTEMS AND IDENTIFICATION

Clarifications have been made regarding conductors passing through ferromagnetic enclosures, support against premature collapse, and cable installation in walls and partitions. Table 51 has been revised to include identification for functional earthing and bonding conductors, with clear restrictions on the use of green-and-yellow insulation.

6.0 LOW-CARBON TECHNOLOGIES & NEW CHAPTERS

GENERATING SETS AND BIDIRECTIONAL ENERGY FLOW (SECTION 551)

Amendment 4 clarifies that stationary batteries are to be treated as generating sets rather than loads. New requirements address bidirectional energy flow and prohibit certain arrangements where a source is connected on the load side of a Residual Current Device (RCD) under defined conditions.

CHAPTER 57 – STATIONARY SECONDARY BATTERIES

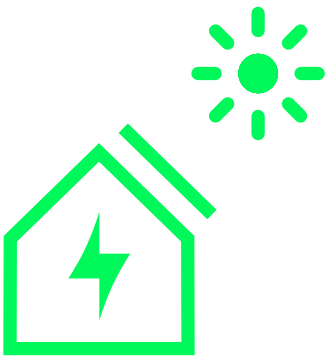
A new Chapter 57 introduces requirements for stationary battery installations used for energy storage and supply. The chapter applies to domestic battery systems but excludes batteries incorporated into products covered by specific product standards, such as Uninterruptible Power Supply (UPS) units and emergency lighting systems. Reference is made to BSI PAS 63100 which provides industry guidance on locations where batteries are to be installed to reduce risks associated with fire.

POWER OVER ETHERNET (SECTION 716)

New Section 716 covers the distribution of Extra Low Voltage (ELV) DC power using telecommunications cabling. This is increasingly relevant in domestic installations using smart home systems, access control, and networked devices, and requires consideration during design, installation, and verification.
It is important to note that conformity with BS EN IEC 62368-3 might still require additional consideration to ensure the requirements for SELV or PELV under BS 7671 are satisfied.

ENERGY EFFICIENCY (CHAPTER 81)

A new Chapter 81 (previously covered briefly in Appendix 17) introduces functional energy efficiency considerations and refers users to Building Regulations and BS HD 60364-8-1. This reflects a shift toward system-level efficiency rather than focusing solely on individual components..



7.0 ISOLATION, INSPECTION, TESTING & REPORTING

ISOLATION AND FIREFIGHTER'S SWITCHES (REGULATION 537.4.2)

Regulation 537.4.2 has been redrafted to require firefighter's switches where specified by the building's fire strategy. These requirements are now driven by the fire engineer and apply to specific situations such as high-voltage outdoor lighting or discharge lighting installations.

FUNCTIONAL EARTHING FOR INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) (SECTION 545)

New Section 545 introduces requirements for functional earthing and functional equipotential bonding for ICT systems. In domestic settings, this may apply where advanced communications, data systems, or Power over Ethernet installations are present.

PERIODIC INSPECTION AND REPORTING (CHAPTER 65 & APPENDIX 6)

Regulations 653.1 and 653.2 now require inspectors to take account of the notes in Appendix 6 and to include guidance for report recipients. Photographic and thermographic evidence may be appended, and the Further Investigation (FI) code no longer automatically renders a report unsatisfactory.

KEY TAKEAWAYS FOR DOMESTIC INSTALLERS

Regulations 653.1 and 653.2 now require inspectors to take account of the notes in Appendix 6 and to include guidance for report recipients. Photographic and thermographic evidence may be appended, and the Further Investigation (FI) code no longer automatically renders a report unsatisfactory.

FIND OUT MORE

A wealth of free electrical safety advice is available at electricalsafetyfirst.org.uk/professional-resources or via the above QR code.

Electrical Safety First hosts the **Wiring Regulations Advisory Group (WRAG)** which provides technical guidance concerning the application of the requirements of BS 7671 (as amended) Requirements for electrical installations. Find out more:

Wiring Regulations Advisory Group (WRAG)

Electrical Safety First

Electrical Safety First is the UK charity dedicated to reducing deaths and injuries caused by electrical accidents. Our aim is to ensure everyone in the UK can use electricity safely.

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