



BREAKING DOWN BS7671

As the latest amendment of BS7671 has just been released, why don't we take a look at how to read the regulation book and understand each segment.

The Structure of BS7671

Part 1: Scope, Object, and Fundamental Principles

- **Scope:** Defines the range of installations covered by the regulations.
- **Object:** Describe the objectives and purposes of the regulations.
- **Fundamental Principles:** Sets out basic safety principles to ensure the safety of persons, livestock, and property.

Part 2: Definitions

Provides definitions of terms used throughout the document to ensure clarity and consistency.

Part 3: Assessment of General Characteristics

Outlines the need to assess the installation environment and conditions, such as external influences, compatibility, and maintainability.

Part 4: Protection for Safety

- This part covers a variety of sections surrounding protection against:
 - Electric shock
 - Thermal effects
 - Overcurrent
 - Voltage disturbances and electromagnetic disturbances

Part 5: Selection and Erection of Equipment

Covers the selection and installation of equipment, including protective devices, isolation and switching devices and wiring systems.

Part 6: Inspection and Testing

Details the requirements for initial verification and periodic inspection and testing of installations to ensure they remain safe.

Part 7: Special Installations or Locations

Provides additional requirements for specific types of installations, such as bathrooms, swimming pools, agricultural locations, and medical locations.

Part 8: Energy Efficiency

Addresses the efficiency of electrical installations, promoting energy-saving measures and the use of renewable energy sources.



Appendices

BS 7671 also includes a number of appendices that provide additional information and guidance. We won't list them all here but the first three are:

- **Appendix 1:** British Standards relevant to BS 7671
- **Appendix 2:** Statutory regulations and related safety legislation
- **Appendix 3:** Time/current characteristics of overcurrent protective devices and RCDs

Numbering Structure

The numbering system consists of parts, chapters, sections, regulations, and sub-regulations.

Here's how each level is organised:-

PARTS

The highest level is indicated by a single digit (e.g., Part 1, Part 2).

CHAPTERS

Each part is divided into chapters, indicated by two digits (e.g., Chapter 41 in Part 4).

SECTIONS

Chapters are divided into sections, indicated by three digits (e.g., Section 411 in Chapter 41).

REGULATIONS

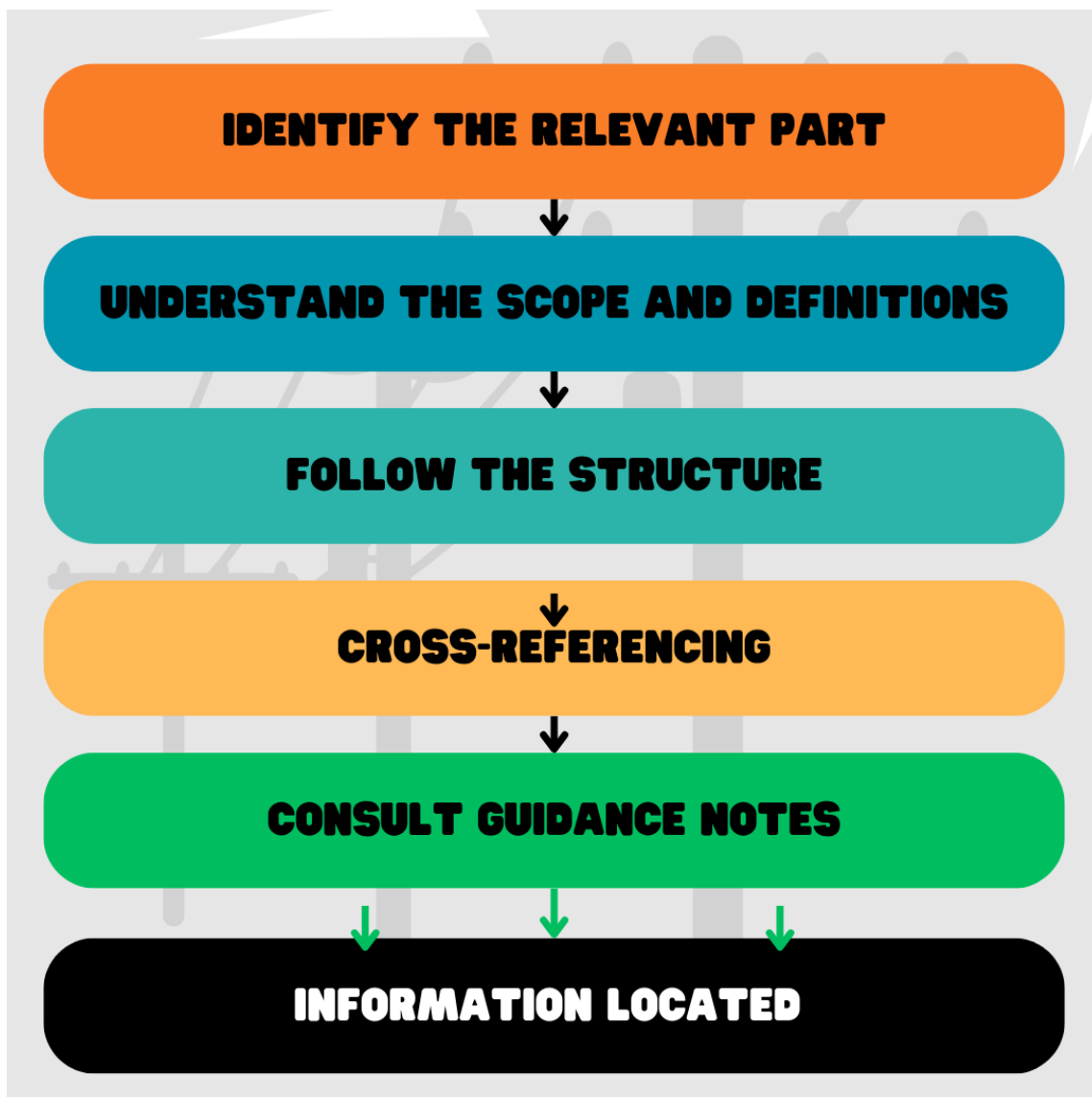
Sections contain regulations, indicated by four digits (e.g., Regulation 411.1 in Section 411).

SUB-REGULATIONS

Regulations may be further divided into sub-regulations, indicated by additional digits separated by dots (e.g., Regulation 411.1.1).

How to Read BS7671

There are 6 easy steps taken to ensure best practice is carried out, note that everyone has their own method, some readers like to use coloured markers, some people even draw in the book, do what works for you.



Using the Numbering System

Locating Information: Start by identifying the part relevant to your query. Then navigate through the chapters and sections to find specific regulations.

Cross-Referencing: The hierarchical structure makes it easy to cross-reference regulations. For instance, Regulation 411.1.1 can be easily found under Chapter 41, Section 411.

Understanding Context: The number system ensures that each regulation is read in the context of its part, chapter, and section, providing a clear understanding of its application.

By understanding this numbering system, you can efficiently navigate BS 7671 and locate the precise information you need for any electrical installation scenario.

Lets Test YOU!

"Does mobile equipment used outdoors with a rated current not exceeding 32 A need to be protected by a 30mA RCD?"

Now let's go through the method in which we locate the answer...

- Straight away we are talking about safety so this takes us straight to Part 4 = **Part 4 - Protection for Safety**
- Then looking at the chapters, Chapter 41 makes the most sense as we are talking about RCDs which protects us from electric shock = **Chapter 41 - Protection against Electric Shock**
- As we now have lots of sub-headers in front of us, let's find the first most applicable one to us and work through it. The first would be section 411. = **Section 411 - Protective Measure: ADS**
- As we are talking about fault protection, regulation 411.3 jumps right out as it states 'requirements for fault protection' so let's turn to the correct page and see what we can find. = **Regulation 411.3 - Requirements for fault protection**
- As we now look through the page we can see 411.3.3 states that mobile equipment not exceeding 32A must be protected by an RCD not exceeding 30mA = **Sub regulation 411.3.3**

ANSWER = Sub regulation 411.3.3

WATT'S TRUE

Here are 3 electrical stories, some of them may be true, some of them may be false, you have to try and figure out what is indeed fact or fiction. (*Answers at bottom*)

To bring the story to life each story was written into a image AI generator.

Story 1: Battery Bank Disaster

Jeff was installing a massive battery bank for an off-grid solar system, using forklift-sized Iron Edison batteries. The manufacturer sent a new battery watering kit designed to simplify maintenance by connecting

all the cells with tubing for easy topping up.

He completed the first installation and moved to the second house, both in the middle of nowhere. An hour after starting at the second house, the first customer arrived on his quad, furious and yelling. His battery bank had exploded like a bomb, destroying the mechanical shed and everything inside.

The new watering kit didn't account for proper venting, causing the batteries to fill with gas and detonate once charged. He had to call the fire department and a hazmat team. He then had to quickly remove the kit from the second customer's batteries before they exploded too.



AI Image Generator

Story 2: False Rumour

Liam (not an electrician) was told by his friend Callum (not an electrician) that apparently he heard a rumour that the local power company had swapped the live and neutral connections over. Liam then went home and personally disconnected the conductors while still live and swapped them himself.

Unknowing to him that he was inches away danger and that could have gone very bad.



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Story 3: Tooth Fairy

When David was carrying out a 1st fix electrical rewire he was feeding all the 2.5mm & 1.5mm to all the new socket locations prior to removing all the old sockets.

After all the new cable had been installed he removed the old faces of the sockets in the kitchen and found a few teeth inside each socket.

He carried on removing all the rest of the old sockets throughout the house and in each and every socket found a few teeth. Later found out that the old owner of the property was a schizophrenic dentist.



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As a thank you from Watt's Up & SuperRod we are doing a giveaway of a [Gekko Gripper](#)

The winner of this giveaway will be selected from readers who have opened this Volume 14 of our newsletter. The winner will be notified via email within 24 hours of the newsletter's release. Please note that to be eligible, the winner must reside in the UK.



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18TH EDITION

AMENDMENT CHANGES

Amendment 4 (2026) to BS 7671:2018 IET Wiring Regulations – Draft for Public Consultation (DPC)

It is intended that this Amendment will include requirements for:

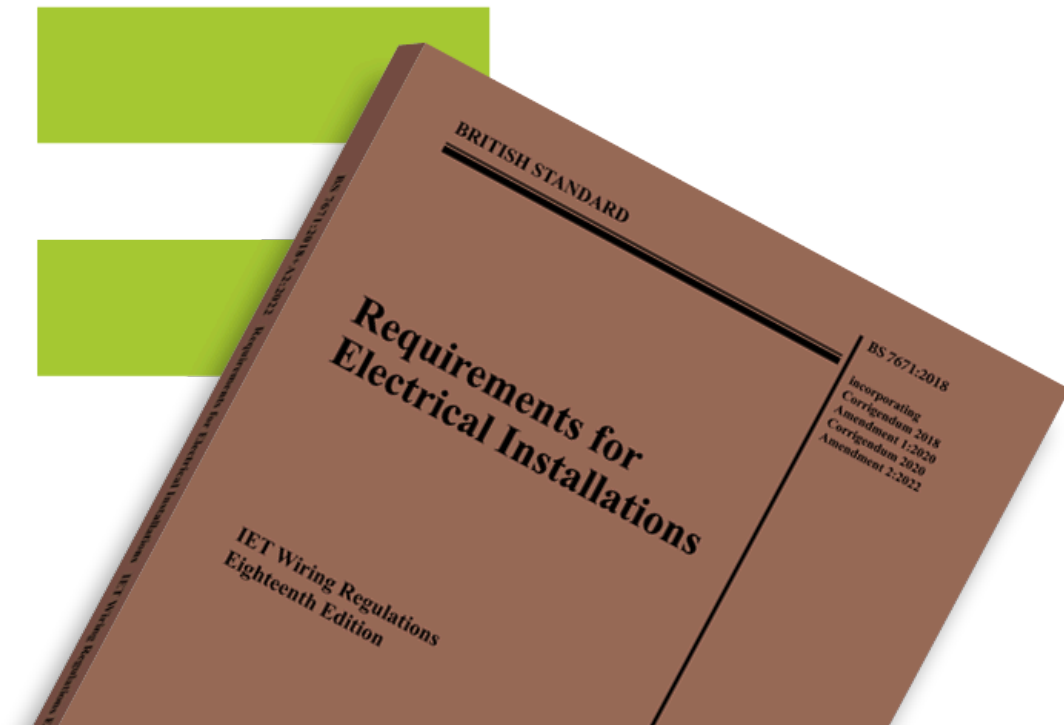
- Stationary secondary batteries
- Low voltage generating sets
- Power over ethernet (POE)
- Energy efficiency and functional earthing and functional-equipotential-bonding for information and communication technology equipment and systems (ICT).

Amendment 4 is expected to be published in 2026, until that time all electricians should have a copy of the following

- Amendment 2 (2022)
- Amendment 3 (2024) - Free PDF bolt-on

Download Amendment 3:2024

All comments must be submitted by the 3rd November 2024, have your say!



ELECTRICAL HEADLINES

DC Power Inbound...

The National [University of Singapore](#) have developed an innovative technique that efficiently converts low-power ambient radiofrequency signals into DC power.

This 'rectifier' technology can be seamlessly integrated into energy harvesting modules, allowing electronic devices and sensors to operate without the need for batteries.

Continuing Professional Development

Anyone wanting to gain that extra qualification and struggling to accumulate them extra CPD points, check out the latest book below... every points counts



Electrician Caught stealing £4,000 of Electricity from Neighbours

An [electrician](#) has been ordered to repay £4,000 to his neighbours after stealing their electricity by diverting the supply to his own home.

The Electrician set up a complex system to siphon power, cleverly hiding the device behind a [picture frame](#). The high bills left neighbours baffled. Pirie admitted to the theft, which occurred between July 2017 and August 2020, and will repay the amount at £40 per month over more than eight years.

They found a Henley block hidden behind a framed picture, which Pirie used to divert their power supply to his home.

Making Sure the Industry Stays Safe

2,044 installers were surveyed in 2022 about their safety habits, on average of 13 fatalities, and over 220 serious injuries, happened due to a lack of safe isolation.

[Super Rod](#) are current running a [survey](#) to gather data and raise awareness around the correct safe isolation practises which was all inspired by [Michael Adamson](#) who was just 26 when he died after coming into contact with mains voltage power in an incident at work in August 2005.

WATTS TRUE ANSWERS

Story 1: Battery Bank Disaster = **FALSE**

Story 2: False Rumour = **TRUE**

Story 2: Tooth Fairy = **FALSE**

CONTACT US

If you are interested in collaborating with Watt's Up, or want us to cover a certain topic please reach out through the link below

Contact Us Here!

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