

# 17th Edition Wiring Regulations

## The New Bible for Electricians

The main aim of these changes is to prevent injuries to people and livestock, and protect property from damage caused by voltage disturbances and the effects of electromagnetics.

New 17th Edition IEE Wiring Regulations will come into effect on 1st July 2008, and many would say it's not before time. BS 7671:2008 Requirements for Electrical Installations, the 17th Edition, includes substantial changes to the 16th edition, which has been in place since 1991, and was made national standard when the British Standards Institution (BSI) adopted the IEE Wiring Regulations.

The 17th Edition Wiring Regulations brings the requirements into line with Europe, as part of a global move involving the British Electrotechnical (BEC) – part of the BSI and the UK member of the International Electrotechnical Commission (IEC) and the European Committee for Electrotechnical Standardisation (CENELEC).

The IEC and CENELEC aim to create common electrical installations standards throughout the world and Europe, therefore the 17 edition will have new regulation numbers in line with IEC numbers.

Significant changes to the 16th edition include:

- The renumbering and restructuring of chapters in line with international standards.
- The allowance of a socket outlet in bathrooms, providing it is 3ms from the edge of a bath or shower and is protected by a RCD.
- All circuits supplying equipment in the bathrooms to be protected by 30mA RCDs.
- The requirement for RCDs for general use sockets as well as mobile equipment.
- An extension of wiring regulations to cover further “special locations”, including exhibitions, photovoltaic (pv) power supply systems, floor and heating systems, marinas, fairgrounds and amusement parks.
- Drawings for electrical installations.

Other changes of note include:

- Protection against electric shock

This chapter has been rewritten – but although many regulations are worded differently there are no significant changes:

- The terms 'direct contact' and 'indirect contact' are no longer used. They are replaced with 'basic protection' and 'fault protection'. 'Basic protection' is protection against touching live parts. 'Fault protection' is protection against receiving a shock from conductive parts that have become live due to a breakdown of insulation or damage to equipment.
- Socket outlets rated not exceeding 20 A and intended for general use by ordinary persons must be protected with 30 mA RCDs. This means that general purpose sockets in domestic and similar properties must have RCD protection.
- External sockets rated not exceeding 32 A must also have 30 mA RCD protection.
- Selection and erection of wiring systems
  - For domestic applications, cables which are buried less than 50 mm into a wall or partition and are not enclosed in earthed metallic covering or have mechanical protection capable of resisting nails, screws or drills, must be protected by a 30 mA RCD.
  - Cables installed in metal-framed walls which are not protected by earthed metallic covering require 30 mA RCD protection.

The above requirements do not apply to installations controlled by skilled or instructed persons, such as for office buildings, large retail outlets and industrial premises.

- Other equipment/ generator sets

This section covers requirements for low-voltage electricity generating sets, and is of particular importance as the use of this kind of equipment is expected to increase in the coming years. Examples include: wind turbines, solar-powered generators, and combined heat and power boilers (both domestic and commercial).

- Luminaires and lighting

This is a new section and is applicable to all general lighting installations as appropriate to particular locations and structures. It includes:

- Requirements for fixed outdoor lighting including highway power supplies and street furniture previously in Part 6, and extra-low-voltage (less than 50 V ac and 120 V dc) lighting systems.
- Both individual luminaires and multi-luminaire track lighting and similar systems.

- Special considerations for protection against fire.
- Locations containing a bath or shower

This section has been modified according to European documents, and requires that:

- All cables buried in walls surrounding bathrooms, regardless of the points they are serving, must be protected by 30 mA RCDs.
- Supplementary bonding between metallic service and waste pipes and the earth connections of equipment is no longer required, as long as the main bonding of services within the property is in place and the metallic pipework can be proved by testing to be continuous. (This makes the need for green and yellow cables in bathrooms more unlikely).
- Separated Extra-Low Voltage (SELV) socket outlets and shaver socket outlets are permitted outside Zone 1. 230 V socket outlets are permitted provided they are more than 3 metres from Zone 1.



The 17th Edition IEE Wiring Regulations

The 17th Edition IEE Wiring Regulations, recognisable by a new red cover, are vital to anyone involved in the design, installation and maintenance of electrical wiring in buildings, including electricians, electrical contractors, consultants, local authorities, surveyors and architects.

If you require any further assistance in regard to the above regulations please do not hesitate to contact us at anytime. We will be pleased to design your systems to full compliance or indeed review any existing installations that may need to be upgraded.

Please call us on 01582 402455

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