



50plus Handyman



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1 Background

The 17th Edition of the Wiring Regulation (formally BS 7671) comes into effect on 1st July 2008. The revision takes into account new technology such as Combined Heat and Power (CHP), photo-voltaic cells (solar panels) small scale generators and more. The 17th Edition is also harmonised with European standards.

This note sets out the author's understanding of the key changes and particularly those that impact the work 50plus Handyman undertakes.

It should be noted that as always the changes are not retrospective.

Familiarity with the language used in the Wiring Regulations is helpful in understanding this note.

2 Main Points

In no particular order:

- Addition of requirements for installation documentation
- Change in language:
 - _ 'direct contact' becomes 'basic protection'
 - _ 'indirect contact' becomes 'fault protection'
 - _ the concept of an 'ordinary person' is introduced (basically an unqualified end user)
 - _ 'phase' becomes 'line' (this will struggle to catch on!)
 - _ 'competent person' reflects the definition as set out in the Electricity at Work regulations
 - _ EEBADS becomes ADS (automatic disconnection of supply)
 - _ for cables in walls 'safe zones' become 'designated zones' (quite right, safe was a misnomer if ever there was one)
- The use of 30mA RCDs to take into account failure of basic protection or the carelessness of end users
- The use of 30mA RCDs to take into account failure of fault protection
- 30mA RCDs for sockets rated at 20A (32A outdoors) with exceptions where the sockets are under the supervision of a skilled or instructed persons (e.g. in a factory) OR are for a specific purpose (e.g. a freezer) and are so labelled
- De-rating of cables in thermally insulated walls changed (increased). This appears to impact the use of 2.5mm cable (or 4mm cable) for use on ring mains where the cable is within an insulated wall/partition including laying up against the wall skin e.g. plasterboard. So a 2.5 mm cable on a ring which was conveniently rated at 20A after de-rating becomes rated at 17A
- Maximum disconnection times are changed (the 5 seconds for fixed equipment goes)
 - _ TN 0.4s for 32A
 - _ TT 0.2s for 32

- There are minor changes to the Zs tables driven by the nominal voltage becoming 230v rather than 240v (so the change is 230/240)
- Specific Zs tables for RCBOs are introduced
- Cables installed in walls included in designated areas, must be protected by a 30mA RCD. The exceptions are unless they have a metallic covering (e.g. MICC or SWA), are encased in earthed conduit or trunking or are mechanically protected against screws etc (and plastic/PVC is not good enough for this). The impact of this is that all of the distribution circuits including lighting will probably need to be 30mA RCD protected. The use of two RCDs in a typical consumer unit could become the norm (arranged e.g. power up, lighting down and visa-versa) OR greater use of RCBOs (which is currently expensive)
- Voltage drop reduced to 3% for lighting and 5% for other
- In bath and shower rooms
 - _ Zone 3 is no more
 - _ All zones now stop at 2.25m in height (instead of zone 2 wrapping over the top of zone 1 etc.)
 - _ No supplementary bonding is required if the equipotential bonding is in place and any exposed metal parts not isolated with e.g. plastic pipes have a low level of continuity to the equipotential bonding
- A number of new special location are added - marinas, exhibitions, solar power systems, mobile units, temporary installations for fair ground rides, circuses, floor and ceiling heating systems
- In caravan parks one RCD per caravan connection point is required.

3 Inspection and testing

There are few changes in inspection and testing although the language changes will impact the documentation. One change is the minimum insulation resistance for cables up to and including 500 V (with the exception of SELV) and PELV increases to 1M Ω from 0.5 M Ω . Voltage drop is going to need to be verified (probably by calculation). This will probably be a 'tick box' on the forms.

4 Other notes

Qualified Supervisors may need to go on a refresher course.

Check the NICEIC web sites for best practice guides.

Thank you to the NICEIC for input to the above including their excellent free seminars.

Roger Runswick

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