

Guidance note on 5 year electrical test of fixed supply and wiring

The fixed supply and wiring needs to be externally tested every 5 years in accordance with the 17th Edition IET Wiring Regulations BS 7671:2008. This has to be done by a qualified electrician.

Like most things related to health and safety, the test is a risk assessment and will usually result in recommendations for remedial work which the school will need to address. The recommendations will be categorised as C1, FI, C2 & C3.

C1 (*Danger present immediate remedial action required*) items will be made safe/isolated by the electrical contractor at the time of the inspection. If possible they will rectify while on site, but if not, this will appear as a C1 item on the report. FI (*Further investigation required without delay*) items need to be addressed immediately as these have the potential to be C1 code items. C2 (*potentially dangerous - urgent remedial action required*) items - The school should take action to remedy these items urgently. C3 (*improvement recommended*) items are those which should be rectified as soon as is practicable. These items still remain a duty of care for the school however the report can still be issued as “SATISFACTORY”.

We will always send a quote with the report for any recommendations made.

The regulations identify how the risk should be assessed;

Table 3.3 Range of samples for inspection

Item	Suggested minimum sample size (notes 1, 2)	Typical checks
Main switchgear external inspection	100 %	Signs of damage, overheating or ageing.
Main switchgear internal sections and cable terminations	Ideally 100 % but not less than 10 % (note 2)	Signs of overheating, ageing, check tightness of cable connections
Main switchgear internal inspection of circuit-breaker connections and control sections	Ideally 100 % but not less than 10 %	Signs of overheating, ageing, check tightness of cable connections
Final circuit distribution boards	Ideally 100 % but not less than 25 % (note 4)	Signs of overheating, ageing, check of cable connections
Final circuit accessories	Between 10 % to 100 % (note 3)	Damage, signs of overheating
Earthing and protective bonding conductors	100 %	Presence and tightness

Notes:

- Where the inspection of a sample yields poor or unacceptable results this would suggest that similar problems may exist elsewhere in the uninspected items. The inspector will then need to either increase the sampling or refer back to the client; it may be that the inspector recommends that 100 per cent inspection is carried out in that area.
- 100 per cent where practicable.
- Generally, it is less appropriate to apply small sample sizing to the inspection of socket-outlets compared to samples for lighting, as it is more likely that user equipment will be hand-held and therefore of greater potential risk from electric shock.
- Do not 'sample samples', resulting in a very low overall sampled installation. Samples must be representative. If it is decided to sample, for example, submain cables at 10 per cent, then further sampling should not be applied to the final circuit distribution boards on these circuits.

Where the inspection of a sample yields poor or unacceptable results, this would suggest that similar problems may exist elsewhere. The electrical contractor will increase the sampling in this instance & notify the school (see table)

Some schools have asked that the test includes the inspection of every accessory & final circuit cable (as far as practical) and a number of contractors recommend this approach to schools. We therefore provide quotes which meet the IET recommended approach and one which includes, as far as practical, a physical check of all accessories & final circuit cables. This is obviously more expensive.

Whilst the 5-year check is required by regulation, it is good practice for schools to have a policy of visually inspecting accessories on an on-going basis.

If you require any further information, please contact Oliver Storr on 01254 958850 or email oliver@dbeservices.co.uk

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