

# Ask Eddie: your questions answered



*Eddie looks at the thorny issue of lighting circuits with no cpc*

**What is NAPIT's policy on replacing a consumer unit on domestic premises where a lighting circuit has no circuit protective conductor (cpc)?**

This question is frequently asked on our technical support line or something similar like "can we change the consumer unit with known departures from the current edition of the wiring regulations".

The first move should always be to recommend that all defects are corrected and if necessary a full re-wire take place. It has to be accepted that a circuit without a cpc does not conform to the BS7671-2001 and therefore should be upgraded.

When a consumer unit change takes place the installation should not be left with any code 1, 2 or 3 defects. The Electrical Installation Certificate does not have a section to list departures unlike a Periodic Inspection Report.

NAPIT strongly recommends a full Periodic Inspection Report is undertaken before a consumer unit is replaced. This will highlight any problems before your customer is committed to the cost of any additional work that may be required. This also shows a high level of professionalism when the invoice for the job matches your written estimate.

## Realistic quotation

Once this Periodic Inspection Report is complete you are then able to give the consumer a realistic quotation for the job. Many of you put aside the few hundred pounds required for the new consumer unit and the time required but don't have the spare few thousand for the full re-wire.

Do you have to walk away? The answer is no. It is time to do some simple risk assessments and work out the best route to follow for the customer but whatever you do you will be leaving the installation in a safer condition than when you arrived. I will look at common faults and actions required. Again, I remind you that these should be corrected as your first recommendation and this is only if the customer refuses to agree to the work. This should include replacing:

- undersized main earth and undersized tails
- and TN-C-S (PME) supply with undersized equipotential bonding conductors.

TN-S or TT supply with undersized equipotential bonding conductors need not be replaced provided you are not adding load to the system while changing the consumer unit.

No supplementary equipotential bonding conductors in the bathroom? Then a risk assessment should take place to determine if there are any class 1 fittings and long lengths of exposed conductive parts that are likely to contact consecutively. If yes, then the work must be carried out.

Broken ring continuity must be repaired or at least the fault investigated and undersized conductors must be correctly protected.

No cpc in the lighting? All class 1 fittings and accessories must be removed and a clear label placed at the board warning that no Class 1 (metal) fittings or accessories can be used.

Cables run outside of their prescribed zones or with inadequate mechanical protection should be protected by an RCD.

Accessories fitted with inadequate IP rating for their environment must be changed. TT supply-install RCDs if not there. There are too many possibilities to list them all. Should you have any doubt then it should be changed or repaired. In the next issue I will look at the paper work.

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