

The 7 Major Sins of Electrical Compliance



Thanks to John Lorimer, Director of Facilities Compliance Services for giving us a satirical look at these potentially serious electrical compliance issues.

With over 20 years in the electrical industry John has seen many dodgy (and dangerous) conditions well worth keeping an eye out for.

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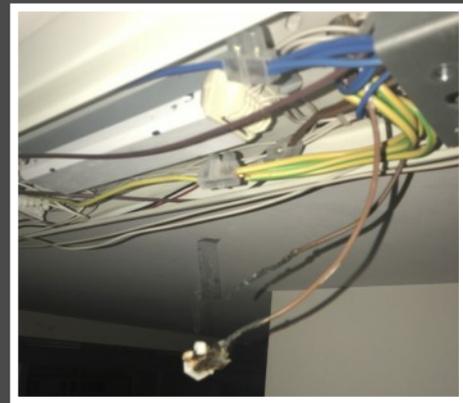
Danger of death



No.1 – LOOSE WIRES START FIRES.

An old one but a good one. Loose wires really do start fires. When connections aren't tightened properly or become loose we get what's called an arc. This arc can cause temperature rise and in serious cases sparks and then fire.

A thorough test and inspection may pick up this issue before it becomes critical. Over 50% of UK domestic fires last year were caused by electrical equipment or appliances.



No.2 – EXCESS COPPER? THAT'S NOT PROPER.

Below is a horrendous case of excess copper within a distribution board. If you can see exposed bare copper anywhere in your electrical installation call a competent electrician to fix the issue. Exposed cables or busbars are highly dangerous and you should be protected from contact.



No.3 – JUST BECAUSE IT GLOWS, DOESN'T MEAN IT GOES.



Emergency lighting is a critical life safety system but is often overlooked. Many sites have little to no paperwork and no one seems to have responsibility for maintenance.

Just because you have a green glowing led doesn't mean the system is ok. In the case above the lamps have been removed at some stage. Try getting out in an emergency with these about.

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No.4 – BEFORE ITS TO LATE, CHECK THE BATTERY DATE.

Another potential hazard is battery dates. Manufacturers generally state 3 to 4 years for a battery lifespan, however some can stay in service up to 6 or 7 years and still work function properly. The worst John has witnessed is batteries up to 16 years old still in service.

The photo (right) shows a battery dated 2010 still in service – it lasted approx. 30 seconds, not the prescribed 3 hours.



No.5 – REMOVE THE FRUSTRATION WITH SAFE ISOLATION.



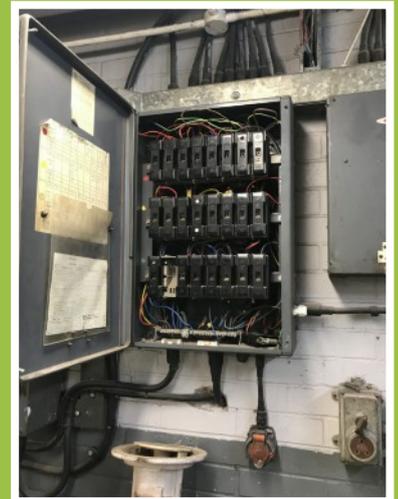
The photo left is not a set up or is it not staged.

The MCCB has been isolated and a piece of electrical tape has been put in place stating 'do not switch on'. However as you can see the tape has started to peel off.

If working around electricity it is best to use a lock off tag off system whereby the MCCB is mechanically locked off using a special kit and padlock.

Ensure to keep the key in your pocket rather than hanging in the lock!!

No.6 – ENHANCE YOUR CONNECTION WITH ADDITIONAL PROTECTION



Additional protection by means of an RCD is required for certain circuits as defined in current version of BS7671, however in older installations these were not a requirement.

If you have an old installation with no RCD for additional protection it may be worth a conversation to gauge risk to persons or livestock.

No.7 – PRESERVE YOUR RELIANCE WITH REGULAR COMPLIANCE

All businesses have a duty of care to ensure the safety of employees and the public alike. Regular testing and inspection of electrical systems is the only way to document the installation in terms of safety.

The interval between tests is decided at the discretion of the inspector, however guidance note 3 gives an indication of general periods.

10 years - (Or change of ownership) – Domestic

5 years – Commercial

3 years – Industrial

Avoid unwanted outages by keeping your compliance up to date.