



18th Edition Wiring Regulations Webinar Q&A

1. How will we access the practice exam?

Practice exams can be accessed through the EAL online exam system, following the same process used to access live exams.

Alternatively, we can provide “packaged practice exams” that allow the practice exam to be run online (through a webpage) without the need for Secure Client – **this will be made available by email request only to exams@eal.org.uk.**

2. How do you square the new requirements of AFDDs when they have a price tag of approximately of £80?

The new regulation number 421.1.7 recommends that AFDDs are placed at the origin of circuits supplying areas with;

- Sleeping accommodation
- Locations with high fire risk due to processed or stored materials
- Locations constructed from combustible materials
- Locations built from fire-propagating structures
- Locations where irreplaceable goods may exist

As a recommendation, the designer will have to discuss all these options with his client, and between them, decide whether the recommendation is to be followed or ignored.

Following the recommendation will inevitably involve cost; particularly as such devices are needed on each circuit, whereas ignoring the recommendation may well have future liability issues should a fire-related fatality occur.

As such, inevitably there will have to be an element of ‘risk assessment’ properly considered and documented involving agreement between both the client and designer.

Regarding cost, it has to be accepted that the introduction of AFDDs is necessary in the UK, to follow world-wide standards, to which the UK is inextricably tied to. AFDDs are also seen as a life safety measure, and much of the UK is rightly very focussed on such events following high profile fatalities.

It is hoped that as more manufacturers start developing and producing such devices, bringing them to the mainstream UK market, market competition and forces will bring prices down.

In many ways a comparison can be drawn to the introduction of RCDs to the mainstream industry in the early 1980s (after the introduction of the 15th Edition) and RCBO demand (following the 2008 introduction of the 17th edition).



3. Do AFDDs apply to virtually every domestic situation “with sleeping accommodation”?

Yes – the new regulation 421.1.7, where AFDDs are recommended as a means of providing additional protection against fire, does list one of the areas to consider as being ‘premises with sleeping accommodation’. This by definition will include dwellings.

4. How do you see the impact on industry based on this regulation 421.1.7?

There will be potentially huge impacts on the industry – as AFDDs are not cheap, will be needed on each circuit of the relevant areas seen as needing such protection, and will have practical issues about physically fitting into either new or existing switchgear such as consumer units.

Additionally the regulation effectively being just a ‘recommendation’ that they be provided, rather than an absolute ‘shall be provided’ will have massive implications on issues such as competitive tendering or quoting, as well as putting designers in an unenviable position regarding liability protection if decisions are taken to omit them.

5. What do you think the impact of AFDDs will be to the average electrician / domestic sector?

The average electrician in the domestic sector will inevitably be the designer of the installation in many cases – so will often have to take the decision whether to include for them, or to omit them.

To include them will incur quite large costs on the project, which may well be criticised, or potentially lose them the work – especially if quoting or tendering, whereas to omit them may lead them to serious future liabilities and threats of litigation if at some time later there is a fatality that it is argued AFDDs could have prevented.

Communication with the client and detailed and documented risk assessment is the key here.

As if this is not enough to contend with, to fit such AFDDs will often involve larger consumer units – perhaps having to replace some which are only a few years old, or indeed having to locate them where physically there is insufficient space!

6. What are the implications to consider when installing even a simple charging point or socket for electric vehicle charging provisions – what do I need to know?

There are many – even for the relatively small ‘trickle charge’ applications where such vehicles are provided with the ‘innocent looking 13A plug’ equipped lead, and the vehicle salesman does the usual sales act of saying they ‘can be charged from any 13 A socket!’



Key areas for the designer/installer to consider are:

- Considering the earthing requirements - especially if charging outside, and using a supply with a PME (TNC-S) earthed source
- Considering the likely power demand and the duration it is likely to be present on the existing installation
- Getting the correct type of RCD protection – especially Type A or Type B devices – to follow the vehicle manufacturer’s recommendations. Such RCDs are not common at present, and, in the case of Type B devices have considerable cost premiums, as well as not being able to be properly tested by all existing RCD testers on the market.
- Getting the correct grade of 13 A socket that has the correct markings indicating that it has been tested and is suitable for the enhanced duties of an EV charger connection
- As well as the normal issues such as: IP ratings of electrical equipment, location where the vehicle will be charged, any planning permission requirements, etc.