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Arc Fault Detection Devices (AFDD's) in certain domestic properties

CO Alarms in ALL rooms with a gas appliance (excluding cookers)

EV Chargepoint grants for landlords

INFORMATION FOR LANDLORDS

Agenda

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- Arc Fault Detection Devices requirements
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About JDL

JDL was founded in 2007 by three directors James Whelan, Dominic Johnson and Liam Rapp, as JDL Electrical Systems LTD

15 years on we have grown from 3 electricians to employing 50 members of staff from York and the surrounding area, carrying out Domestic, Commercial and Industrial work to a large range of customers

JDL's growth has been due to our reputation of being a high quality, honest and trustworthy contractor.

When looking to expand our services into plumbing and heating we started small employing our first engineer in 2014, who is still with us today and is now the Plumbing and Heating manger for my team. We accelerated the growth by acquiring two smaller plumbing and heating contractors first Colin Bell of York in 2017 and in 2020 Paul Cuthbertson's of Malton.

JDL is now spilt into two disciplines the projects team who carry out new commercial installations all over the country and the small works and maintenance team which covers York, Malton and surrounding villages and currently trades as P&A Cuthbertson LTD.

I look after the small works and maintenance team which consists of 5 electricians, 7 plumbers, 4 apprentices and office staff providing the following services

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Our services

Electrical

- Electric vehicle chargers, Solar PV, Testing and inspection, New installation, Rewires, Repairs and maintenance

Plumbing and heating

- Gas safety certificates, Servicing, Boiler replacements, Air source heat pump installations, New heating systems, Repairs and maintenance

CO Alarm requirements

Many of you will have been informed by letting agents, contractors or have read yourselves that CO alarms are to become a legal requirement imminently due to an update to the current regulations,

- The Smoke and Carbon Monoxide Alarm (England) Regulations 2015

Is about to be superseded by the

- The Smoke and Carbon Monoxide Alarm (Amendment) Regulations 2022 which comes into force on 1st October 2022.

From that date, all relevant landlords must:

Statutory requirement

- 1. Ensure at least one smoke alarm is equipped on each storey of their homes where there is a room used as living accommodation. This has been a legal requirement in the private rented sector since 2015.

- 2. Ensure a carbon monoxide alarm is equipped in any room used as living accommodation which contains a fixed combustion appliance (excluding gas cookers).

- 3. Ensure smoke alarms and carbon monoxide alarms are repaired or replaced once informed and found that they are faulty.

What does this mean for landlords?

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- Most likely you will need to fit at least one CO alarm per property in the room containing the boiler

- Additional alarms will be required in all rooms containing a fixed combustion appliance, excluding cookers, this could be
  - Fires
  - Back boilers
  - Log burners
  - Gas water heaters

- CO alarms must be replaced as soon as reasonably practicable if found be missing or faulty.

Installation and cost

The alarms range in price and quality

All CO alarms are relatively easy to install and you can do this yourself if you wish.

For an idea of cost

As standard we install Aico EI208 CO alarms these have a 10-Year sealed tamperproof lithium integrated battery and are the market leading brand.

- This means no maintenance is required for the life of the product
- The unit cost is approximately £25
- If fitted as part of a gas certificate we charge £30 per device which includes labour and materials
- If we attend a property just to fit the alarms, we charge £52.50 for the first alarm and £30 per alarm thereafter

Enforcement

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- The requirements are enforced by local authorities who can impose a fine of up to £5,000 where a landlord fails to comply with a remedial notice.

Statutory requirement

The Regulations are available to view and download online at:

https://www.legislation.gov.uk/uksi/2022/707/contents/made

However the below guidance is a far more user friendly document

https://www.gov.uk/government/publications/smoke-and-carbon-monoxide-alarms-explanatory-booklet-for-landlords/the-smoke-and-carbon-monoxide-alarm-england-regulations-2015-qa-booklet-for-the-private-rented-sector-landlords-and-tenants

Arc Fault Detection Device requirements

BS7671 18th Edition wiring regulations, set out the requirements for electrical installations

Arc fault detection has been noted as a recommendation for some time, but in practice was almost impossible to achieve. To this day the protection devices themselves are expensive and difficult to come by.

The latest addition of the regulations Amendment 2 - BS 7671:2018+A2:2022 Requirements for Electrical Installations was issued on 28th March 2022 and allowed a 6-month grace period for implementation which runs to 27th September 2022.

The requirements for AFDDs in BS 7671:2018+A2:2022 has increased from being a recommendation on all single-phase AC final circuits to now being **mandated** on certain installations and types of circuits.

What are Arc fault detection devices?

An arc is created when the electrical current jumps the gap between two conductive materials. The most common causes of arcs include worn contacts in electrical equipment, damage to insulation, break in a cable and loose connections.

Whilst fires in dwellings have decreased significantly over the past ten years, there are still a considerable number of fires which are attributed to electrical faults. It is not to say that AFDDs would prevent all of these incidents, but it is likely that the number would be reduced.

AFDDs are protective devices installed in consumer units to provide protection from arc faults. They use microprocessor technology to analyze the waveform of the electricity being used to detect any unusual signatures which would signify an arc on the circuit. This will cut off power to the affected circuit and could prevent a fire. They are far more sensitive to arcs than conventional circuit protective devices.

Like a Residual Current Circuit Breaker (RCCB) or Residual Current Breaker with Overcurrent protection (RCBO), AFDDs usually incorporate a test button which can be operated by the end-user to prove the mechanical operation of the device.

Where and when do they need to be installed?

Regulation

421.1.7 Arc fault detection devices (AFDD) conforming to BS EN 62606 shall be provided for single-phase AC final circuits supplying socket-outlets with a rated current not exceeding 32 A in:

- Higher Risk Residential Buildings (HRRB) – (over 18 m in height or in excess of six storeys)
- Houses in Multiple Occupation (HMO)
- Purpose-built student accommodation – (Buildings used for the sole purpose of providing residential accommodation to students. The purpose-built element here suggests to readers that this Regulation is not related to homes that are let to students but is specific to a building that has been designed for student living).
- Care homes

I would imagine for those of you watching main property type of interest would be HMO's, and in plain English the above means all new or altered socket circuits in these properties require Arc fault detection devices.

How much will they cost?

Initially they will be expensive I would estimate £100 per device, so if the property has 4 socket circuits that could be £400 just for the materials.

Installation wise providing the distribution board you have fitted is compatible (The Hager distribution boards we have been fitting since 2018 are compatible), the installation time will be no longer then if we were adding any other circuit breaker to the fuse board.

As with everything they will reduce in cost as they become more popular, RCD’s were once a similar cost and now are £20-£30, depending on type and brand.

What to consider when instructing electrical works?

Is my property one of the four types listed in the regulations?

If your answer to the above question is - Yes

- Ensure contractors are providing comparable estimates for works, if one is much cheaper ask if they have included for Arc fault protection……they likely haven't!

- If your answer to the above question is - No
  - There is no requirement to install Arc fault detection at present
  - However, if as expected regulations become stricter with each amendment as they did with surge protection and RCD's before that, then it is likely that in the next 4-10 years they will be required in all installations.
  - Consider this when instruction works such as rewires and replacement fuse boards as an unbranded distribution board may meet all requirements today and save £50 in material cost, but should it be incompatible or worse obsolete in the near future upgrading to the new regulations may not be possible without replacing the fuse board again.

FAQ’s

My property has just passed it’s EICR will it now fail?

No – At the next EICR current guidance is that the circuits without Arc fault detection in these types of properties will attract a C3 code (Improvement recommended) and so not fail.

I have a HMO and wish to install a new socket to an existing circuit do I need to upgrade to Arc fault detection?

Yes – In order to sign the installation off as compliant the affected circuit would need to be upgraded to current standards

Electric Vehicle charge point installation

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The growth in popularity of electric vehicle continues to expand year on year and whilst government incentives for private households to install charge points have now ended, grants are still available for landlords of residential or commercial properties

As more and more people buy electric vehicles the expectation that rental properties will provide the facility to charge them will increase

As such properties with charging points will become more attractive to tenants then those without

Although at present no end date has been set for the grant, funding for the scheme is limited.

Does your property qualify?

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Your property must be in the UK

You can apply for:

- Single-unit residential properties, such as flats and houses
- Multi-unit residential properties, such as apartment blocks
- Commercially-let units

If your property is commercially let, the charge point must be for the sole use of your tenant's staff or fleet vehicles. It cannot be for public use.

For each charge point socket installed, you must:

- Have a clearly-defined private parking space
- Own or have the sole legal right to each parking space

How the grant works for landlords

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1) Contact one or more OZEV-authorised installers.
2) Get a quote and follow your chosen installer's advice.
3) Check you are installing an OZEV-approved charge point model:
4) Get your installer's OZEV installer number, if you want to go ahead.
5) Create an account and apply for the grant. See the 'How to apply' section of this guidance to create or log into your landlord account.
https://www.gov.uk/electric-vehicle-chargepoint-grant-landlords

6) Once OZEV approves the grant application, your installer can start the work.
7) Your installer has 90 days to do the installation.
8) When your installer finishes the installation, they will claim the grant on your behalf. To do this, they will upload a copy of your invoice and photos of the chargepoints installed. Your invoice will include a discount to cover the grant amount.
9) OZEV pays the grant to your installer.

How much you can get?

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You can get either £350 or 75% off the cost to buy and install a socket, whichever amount is lower.

Each financial year, you can get up to:

- 200 grants for residential properties
- 100 grants for commercial properties

These can be across several properties and installations or for one property.

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Summary

CO alarms mandatory from 1st October 2022

Arc Fault detection devices mandatory in certain circumstances from 27th September 2022

Electric Vehicle charge point installations grants of £350 still currently available for rental properties.

Questions?

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Q&A

1. My boiler is located in the old airing cupboard which is in the bathroom of the property where should I locate the CO detector?

Very good question and one I had to confirm with the manufactures, the alarm can not go in the airing cupboard as they shouldn’t be sited in enclosed spaces and it cant be installed within the bathroom itself as they can not be exposed to moisture so the most suitable place would be as close as the manufactures instructions allow it to be located to the entrance of the bathroom.