



Landlord's Guide to Smoke & Carbon Monoxide (CO) Alarms



Contents



Introduction	4
The dangers	5
The dangers of fire	6
The dangers of Carbon Monoxide (CO)	7
Where does CO come from?	8
Why do I need Smoke & CO alarms?	9
Standards and Regulations	11
England – the law	12
Scotland - the law	13
Northern Ireland & Wales	14
Best Practice	15-16
Choosing what alarms to fit	17
What Smoke alarms do I need to fit?	18
Where should I fit Smoke alarms?	19
What type of CO Alarms do I need to fit?	20
Where should I fit CO alarms?	21
AudioLINK - the data extraction technology	22-23
Why do I need to interconnect/interlink alarms?	24
How do I interconnect/interlink alarms?	25
How do I stop the alarms going off accidentally?	26-27
Frequently Asked Questions	29-37
What do I need to fit	38-39
Find an Expert Installer	40-41
Appendix	42-45
About Aico	46

Introduction

As a Landlord, you have a long list of things you need to do. How high on that list is keeping your tenants safe from Fire and Carbon Monoxide (CO)?

In England & Scotland Landlords' must fit Smoke and CO Alarms in their tenanted properties by law. In Wales & Northern Ireland Landlords' have a Duty of Care to the people living in their property. Ignore this and you could get a fine, sent to prison or even worse have the death of a person on your conscience.

The answer's simple – fit Smoke & CO alarms.

But don't worry, this guide will tell you all you need to know to **make** sure you get it right.



The dangers



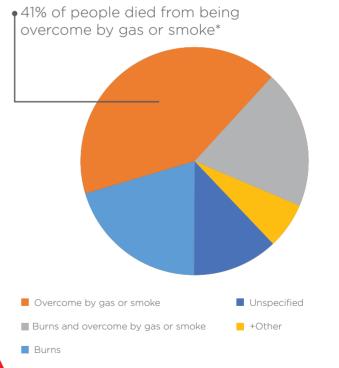
The dangers of fire



The majority of people die or get injured in house fires due to exposure to hazardous smoke and toxic gasses rather than the actual heat or flames from the fire itself.

- Smoke can obscure escape routes visually, causing disorientation, slowing people down.
- Toxic gasses are released, such as Hydrogen Cyanide from burning plastics, causing dizziness, confusion, unconscious and death.
- Fire needs Oxygen to burn; even a small reduction in the amount of Oxygen in the air we breathe can cause impaired thinking and attention, reduced coordination and judgement.

Causes of death from fire:



* Source: Fire Statistics monitor: April 2014 to March 2015

+ Other includes head injury, physical injury and other medical conditions

www.aico.co.uk

REMEMBER - FIRE SPREADS FAST

Fit Smoke Alarms - give your tenants the earliest possible warning to get out of the property safely if there is a fire.

The dangers of Carbon Monoxide (CO)



Carbon Monoxide (CO) is a silent killer.

CO is a by-product of burning any combustible material, such as coal, oil, wood and gas.

It's a poisonous gas that if breathed in suffocates the victim as it replaces the oxygen in the blood.

CO is a gas that can pass through gaps in-between door fittings and floor boards, through carpets and even drywall. The effects of CO poisoning look similar to flu – with symptoms like headaches, nausea and fatigue. Small leaks can leave lasting damage on a person's lungs, heart and brain if exposed over long periods of time. In bad CO leaks a person can be left unconscious and dying within minutes.

See page 44 for the effect CO has on an adult human body.

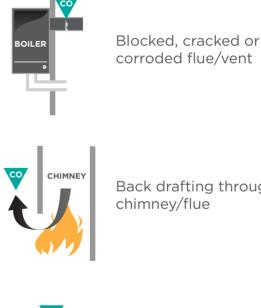
Where does CO come from?



CO is a by-product of the fuel burning processes in household appliances - cookers, boilers, wood burners and open fires are all potential sources of CO.

Even if the appliances are set up properly, you can still get problems like the ones shown. So, if you have any fuel burning appliances you'll need to have CO alarms fitted to protect your tenants.

Possible sources of Carbon Monoxide (CO):



Back drafting through



without flues

Appliances

www.aico.co.uk

Even if you don't have a fuel burning appliance, the property next door may. CO can leak through walls - fit a CO alarm.

Why do I need smoke & CO alarms?

As a landlord you have a **Duty of Care** to the people living in your property.

Part of that means giving your tenants the earliest possible warning of a fire or CO leak to enable them to escape the property without harm. It is also a **legal requirement** for landlords to fit smoke & CO alarms in some parts of the UK.

> But don't worry, this guide will tell you all you need to know to **make sure you get it right**.

People living in rented or shared accommodation are seven times more likely to have a fire*

72% of CORGI registered engineers discovered a CO leak on a customer's appliance during routine servicing.+

+ Source: CORGI Carbon Monoxide Report 2008 * Source: Fire Safety in Shared or Rented Accommodation, Communities and Local Government 2008

Standards & Regulations



England – the law



SMOKE ALARMS

As of the 1st October 2015 all private tenanted properties must have working smoke alarms installed on every level of the property by law.

Indo

CO ALARMS

As of the 1st October 2015 all private tenanted properties must have working Carbon Monoxide (CO) alarms installed - by **law** – in any room with a solid fuel burning appliance (such as wood burners, coal fires etc.). Additionally, the Q&A document that accompanied this law also stated that they 'expect and encourage reputable landlords to cover gas appliances'.

Find out more how AudioLINK - data alarms are in working order. See page 22-23 or visit www.aico.co.uk/AudioLINK for more



KEY: Fit a CO alarm

Diagram refers to the siting of CO alarm law in England.

KITCHE

<u>-</u>

Fit CO alarms in any room with a solid fuel burning appliance.

ROOM

Scotland - the law



SMOKE ALARMS

As part of the ***Housing (Scotland) Act 2006** landlords must have satisfactory provision for detecting fires – **by law**. The recently revised statutory guidance states that smoke alarms should be installed:

- in rooms frequently used by occupants for general daytime living, such as the living room
- every circulation space, such as hallways and landings
- additionally a heat alarm should be installed in every kitchen
- all alarms should be interlinked/ interconnected
- alarms should be Grade D (see page 42) mains powered and battery back up
- and, at least one alarm on each storey

CO ALARMS

As of the **1st December 2015** all private tenanted property must have working Carbon Monoxide (CO) alarms installed - **by Iaw** – in every room or interconnected space where there is a fixed combustion appliance (excluding an appliance used solely for cooking). This includes gas boilers, wood burners etc.

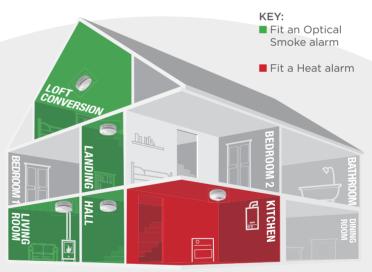


Diagram refers to the siting of Smoke and Heat alarm law in Scotland.

LD2 – Medium Protection – with an alarm on each storey. Minimum requirements for Scottish Landlords

* Source: Housing (Scotland) Act 2006: Scottish Government Guidance on satisfactory provision for detecting and warning of fires. Private Rented Housing Panel, Scotland.

Northern Ireland & Wales



SMOKE & CO ALARMS

There is no specific law for private landlords to install smoke or CO alarms in Northern Ireland and Wales, but if you are building, extending or renovating then Building Regs will require you to fit smoke and CO alarms. It is also believed that these countries will follow the lead of Scotland and England before too long – so make sure you are covered.

However, landlords in these countries should be aware that some Councils or Housing Executives licence HMOs (House in Multiple Occupancy), which means you may need to fit smoke and CO alarms to get a licence. Also, some insurance companies will not cover rental properties without smoke alarms.

In Wales you must fit a CO alarm when installing a new or replacing an old solid fuel burning appliance (solid fuel is coal or wood). In Northern Ireland you must fit a CO alarm when installing a new or replacing an old appliance that burns any type of fuel (gas, oil, wood or coal), except for a cooker.

Overall, you have a Duty of Care to your tenants.

Make sure you're covered - fit smoke alarms.

If in doubt, fit a CO alarm.

Best Practice



There are over 20,000 British Standards in the UK, all of which are there to make our lives easier, safer and healthier.

Smoke and CO alarms are life saving devices and each have their own British Standards for installation that will tell you the types of alarms to fit, how many and where to put them.

Building Regs, Local Authorities, HMO Licences and Installers fit to these Standards, and Aico recommends that landlords also fit to these Standards.



Fit Smoke alarms to British Standard (BS 5839-6:2013 Grade D, Category LD2)



Fit CO alarms to British Standard (BS EN 50192:2013)





The British Standard for installing Smoke Alarms: BS 5839-6:2013 (Sometimes referred to as Part 6)

British Standards recommends a minimum of a Grade D Category LD2 smoke alarm system is adopted – subject to a Fire Risk Assessment.

- Grade D (Mains Powered alarms with back-up power supply)
- LD2 (Medium Protection escape routes and high risk areas e.g. hallways, landings, living room, kitchen)

The British Standard for installing CO Alarms: **BS EN 50292:2013**

British Standards recommends CO alarms should be sited in:

- rooms that have any fuel burning appliance
- where people sleep
- where people spend the most time
- in each room that a flue runs through or alongside

These are guidelines, for full details refer to the full text of the relevant British Standards.

Choosing what alarms to fit



What Smoke alarms do I need to fit?



Smoke alarms can be powered by batteries or wired into the mains electricity.

However, tenants could remove batteries to use in other electrical things, like TV remote controls. As soon as they do this, the alarms will not work if there is a fire. You as a landlord could still be liable for any injury or harm caused if a fire starts.

It's recommended that the smoke alarms you need to fit should be powered from the mains electricity supply and have built in battery back-up, so the alarms will work even if there is a power cut.

The battery back-up should use rechargeable lithium batteries, last the life of the alarm (10 years) and be sealed in, so your tenants can't take them out. As they are powered from the mains electricity, you will need a qualified electrician to fit them.

*Source: Fire Statistics Great Britain 2011 - 2012, Department for Communities and Local Government, Dec 2012

18% of battery alarms failed to respond in the event of a fire* You can search for your nearest Aico Expert Installer at **www.aico.co.uk** - have a look at page 40-41.

This is a 'Grade D' system under the British Standard – (see page 42 for more info.)

In Scotland you must fit a 'Grade D' smoke alarm system.

If you do choose a battery smoke alarm, make sure it has a 10yr life and is tamper proof. The smoke alarms should carry the Kitemark **BS EN14604** and the heat alarms should carry the Kitemark **BS 5446-2**.



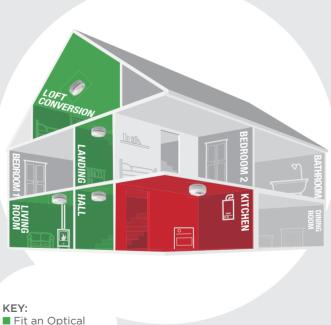
Where should I fit Smoke alarms?



Every house is different but alarms should be fitted in hallways and landings, so if there is a fire in these areas tenants can get out quickly. There is more chance of a fire starting in a kitchen or living room, so alarms should be fitted here too.

This is a 'Category LD2' system under the British Standard – (see page 43 for more info.) In Scotland you must fit, as a minimum, a Category LD2 smoke alarm system.

The best person to speak to for advice on how many alarms you will need, where to put them and types of alarm to fit is an Aico Expert Installer. (Have a look on page 40-41 to find your nearest one.)





Fit a Heat alarm

What type of CO Alarms do I need to fit?



CO alarms can be powered by batteries or wired into the mains electricity.

Tenants could remove batteries to use in other things, like TV remote controls. If they do this, the alarms will not detect CO but you as a landlord could still be liable for any injury or harm caused from a CO leak.

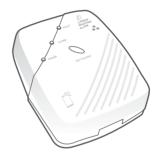
If you choose battery only CO alarms, you need one with sealed-in lithium batteries that last the life of the alarm (10 years). The alarms should meet the British Standard BS EN 50291-1.

However, it doesn't stop the tenant from taking the whole unit with them when they move.

A CO alarm powered from the mains electricity supply with a built in rechargeable battery back-up is more secure.

Because they are powered from the mains electricity, you will need a qualified electrician to fit them. (You can search for your nearest Aico Expert Installer at **www.aico.co.uk** – have a look on page 40-41.)

Mains powered CO alarm



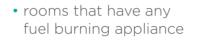
Battery powered CO alarm



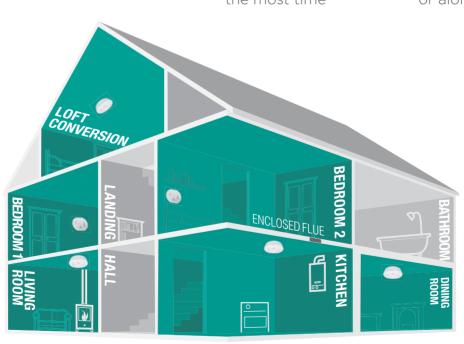
Where should I fit CO alarms?



The legal requirement to fit CO alarms varies across the UK, but in accordance to the British Standards you should put CO alarms in:



- where people spend the most time
- where people sleep
- each room that a flue runs through or alongside



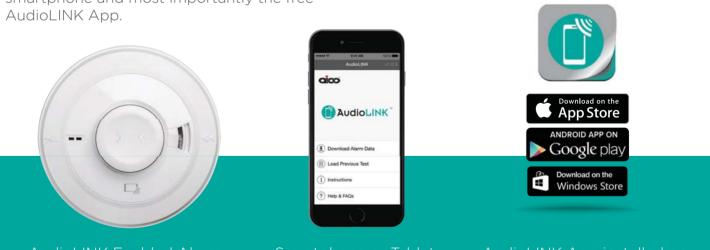




AudioLINK is a revolutionary new data extraction technology integrated into all Aico Carbon Monoxide (CO) Alarms and the new Multi-Sensor Fire Alarm.

Perfect for landlords, AudioLINK allows real time data to be extracted via the alarm's sounder providing proof that the alarms are in working order, and that it is being tested regularly by the tenants. All you need is an AudioLINK enabled alarm, a tablet or smartphone and most importantly the free AudioLINK App.

This data is converted into an easy to use colour coded Alarm Status Report, which is simple to review and store. It records alarm activations, run time, battery level, test button activations and much more.



AudioLINK Enabled Alarm

Smartphone or Tablet

AudioLINK App installed on the phone or tablet

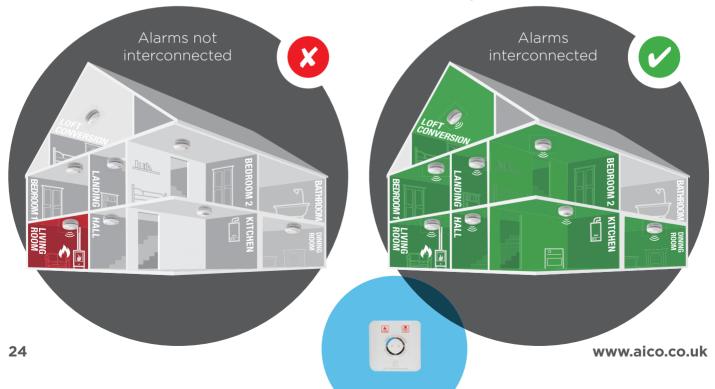


Why do I need to interconnect/ interlink alarms?

If you put a Smoke alarm in a room and there is a fire, that alarm will go off. But if the tenant is at the other end of the house they may not hear it – and so may not get out in time.

Remember, fire spreads fast.

Similarly, if you put a CO alarm in a room and there is a CO leak, that alarm will go off. But if the tenant is in another room they may not hear it. You can prevent this by connecting Smoke alarms throughout the house, and you can do the same for a mixed Smoke and CO alarm system. If one alarm goes off, it will set off all the other alarms. This gives your tenants the earliest possible warning to get out of the property safely. You should also add an Alarm Controller to the alarm system as this tells you if it is a Smoke or CO alarm that is sounding (see page 39 for more info). In Scotland you must fit an interconnected smoke alarm system.



How do I interconnect/ interlink alarms?

Interconnecting alarms can be done in two ways:

HARD-WIRING

Involves running cabling between each alarm in the property. This can cause disruption for you and the tenants. Drilling holes, chasing cables and re-decorating can be expensive and messy.

RadioLINK

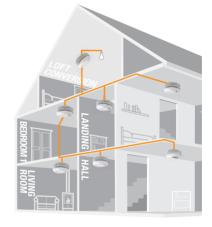
Involves interconnecting alarms wirelessly using Radio Frequency (RF) signals, cutting down on cables and disruption.

RadioLINK Mains powered alarms still need to be wired to the mains electricity but this can be from the nearest ceiling light, keeping disruption to a minimum.

Note: In Scotland, the wiring of the light circuit may be different to the rest of the UK. Your electrician will advise you of the best solution.

www.aico.co.uk

RadioLINK alarms have their own unique frequency, so won't interfere with any mobile phones, WiFi or Bluetooth signals.



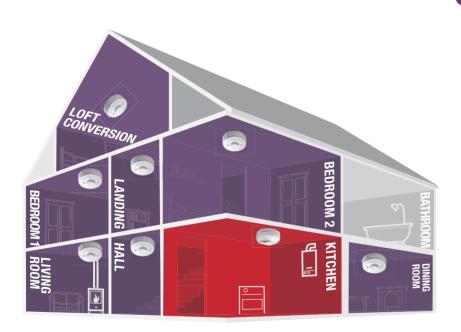
Hard wiring



RadioLINK^{*}

How do I stop the alarms going off accidentally?

Smoke alarms have different sensors to detect different fire types. Fit the right type of alarm to avoid nuisance alarms and get the best protection.



MULTI-SENSOR SYSTEM

Contains two sensors to detect both smoke and heat, so responds to **all fire types.**



Or, select sensor types in accordance to best fit.

OPTICAL

Detects smoke from slow, smouldering fires and is less prone to false alarms if fitted in the hallway next to kitchens.



HEAT

Detects heat only, so won't go off if the tenants are just cooking.



IONISATION

Detects smoke from fast-flaming fires and can be prone to false alarms if fitted near kitchens.





Frequently Asked Questions



Can alarms be fitted whilst the tenants are in?



There will only be a small bit of disruption if the alarms are mains powered as an electrician will need to install them. They will have to wire them to the electricity supply and screw the alarm bases to the ceiling. The electricity will be off for short periods while they do this.

WILL IT MAKE A MESS?

To reduce mess get your electrician to install RadioLINK alarms rather than Hardwired when interconnecting/interlinking. They use Radio Frequency signals to connect with each other. This means the electrician won't have to take up floorboards, cut into walls or fit trunking to run cabling and then redecorate.

WHAT DOES IT COST?

The cost depends on the number and type of alarms you need for your property. Contact your nearest Aico Expert Installer for a quote – after a few simple questions they will be able to give you a better idea.

Ask for RadioLINK alarms to reduce the costs of redecorating and disturbance to your tenants with dust and noise.



Who can fit the alarms?



You will need a qualified electrician to install mains powered Smoke and CO alarms. They can also fit the battery powered alarms to make sure they are fitted correctly.

You can search for your nearest Aico Expert Installer at **www.aico.co.uk**

Once the electrician has fitted the alarms, they will test the system to make sure everything works correctly. They should then give you a signed certificate to say they've fitted and tested the alarms correctly – make sure you get a copy of this.



What if the tenants tamper with the alarms?



If a tenant disables an alarm, you as a landlord could still be liable for any injury or harm caused if there is a fire or CO leak.

SMOKE AND HEAT ALARMS:

• Fit the right type of alarm in the right room

This will stop the alarms going off every time the tenants cook. See page 26-27 for types of alarm.

• Use mains powered alarms with rechargeable, battery back-up

Rechargeable batteries last the life of the alarm. As the batteries recharge, you won't need to replace them every couple of years and the alarm won't beep to warn you that the battery has run down – keeping you and your tenant happy. Also, these batteries are sealed in and tamper proof, so the tenants won't be able to remove them to transfer them into other objects.

* Source: Fire Statistics Great Britain 2011 –2012, Department for Communities and Local Government, Dec 2012

CO ALARMS:

The only reason tenants could tamper with alarms is to take the batteries out for another item or if the alarms start beeping. All of Aico's CO alarms have sealed-in batteries, so tenants can't remove them and disable the alarm.

Also, it is important to note that CO alarms will only beep if:

- The alarm is reaching its end of life, or
- The alarm detects CO

Missing or flat batteries accounted for 30% of all failure in batterypowered smoke alarms*.

Sealed in tamper proof 10 year Lithium batteries >

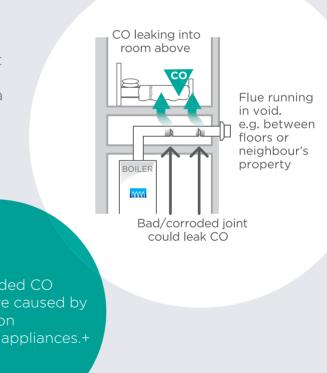
R

Do I need CO alarms if...?

The boiler is serviced annually? Yes!

Boilers run constantly, so could develop a problem at any time. Just because a boiler is working correctly at the time of service, it doesn't mean a problem can't happen later.

Vents and flues can block, crack or corrode at any time leaving holes large enough for CO to leak out of. CO leaks can even come from a faulty appliance in your neighbour's property.



40% of recorded CO incidents were caused by bad installation and repair of appliances.+

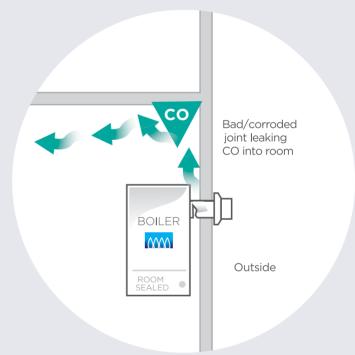
+ Source: CORGI Carbon Monoxide Report 2008



The boiler is "Room Sealed"? Yes!

A "Room Sealed" boiler pulls air into its casing to burn fuel then pushes the used air back outside. This means that if the boiler is working properly then no fumes will escape into the room. But, joints can corrode or crack in **all** types of boilers – leaving holes big enough for CO to get through.

Fit a CO alarm in the room your boiler is in and the rooms with a flue running through or alongside – this is the only way you can make sure a CO leak will be detected.



Do I have to maintain the alarms?



The simple rule to remember is to get your tenants to: **Test Weekly, Clean Monthly**

HOW DO YOU TEST THEM?

All alarms have a test button on the front but the tenant may need to stand on a chair to reach it or use a broom handle – not ideal!

Avoid the risk of tenant injury and alarm damage by using an Alarm Controller. This fits to a wall and makes testing easy – simply press the button to test all the alarms.

Tenants can also silence the alarms if they are accidentally triggered, and even tell which alarm has activated the system if they're all sounding.

Have a look on page 39 for more information.

HOW DO YOU CLEAN THEM?

Simply vacuum around the small vents to remove any loose dust or cobwebs.

Will I ever need to replace the alarms?

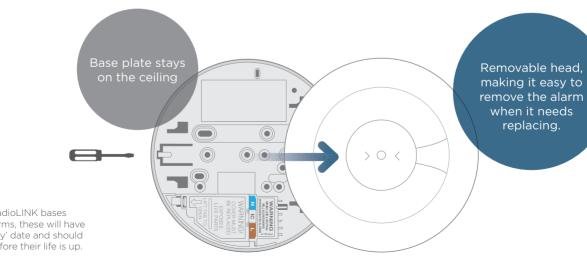


Alarms should be replaced every 10 years as that is their life span.

To check how old they are, have a look at the 'date-code' sticker on the side of the alarm. This will tell you the year and week the alarm was made, and the latest date it should be replaced by.

Aico alarms have an 'easi-fit' base which the alarms will be fitted onto. The base is the only part actually fixed to the ceiling, so just insert a flat-bladed screwdriver into the removal slot to slide the old alarm off and replace with a new one.





Note: if you have RadioLINK bases fitted under the alarms, these will have their own 'replace by' date and should also be changed before their life is up.

What do I need to fit? Smoke Alarms







CO Alarms

Mains powered CO alarm



Battery powered CO alarm

BS EN 50291-1:2010 BS EN 50291-2:2010 KM 86596

Alarm controller



- Contains AudioLINK technology
- 10 year life
- Rechargable Lithium battery back-up
- · Proven electrochemical sensor

	CO Alarm with
🕐 RadioLINK 🕯	wireless
interconnect	

Mains powered CO Alarm with Hard-wire only interconnect

•	Contains	AudioLINK [~]	technology
---	----------	------------------------	------------

• 10 year life

Ask for

Ei262

Ask for

Ei261ENRC

- Sealed in Lithium battery
- · Proven electrochemical sensor
- Easy to fit twist on base and multi-fixings

Stand alone Battery CO Alarm	Ask for
	Ei208
Battery CO Alarm with RadioLINK ⁺⁻ wireless interconnect	Ask for
	Ei208WRF

- Use with RadioLINK Fire & CO alarms
- · One button test, three functions
- TEST: Test all alarms
- LOCATE: Easily find the alarm that has triggered the system
- SILENCE: Stop alarm from sounding if no fire present
- 10 yr sealed-in Lithium Battery completely wireless
- Indicator lights show what type of alarm has triggered the system

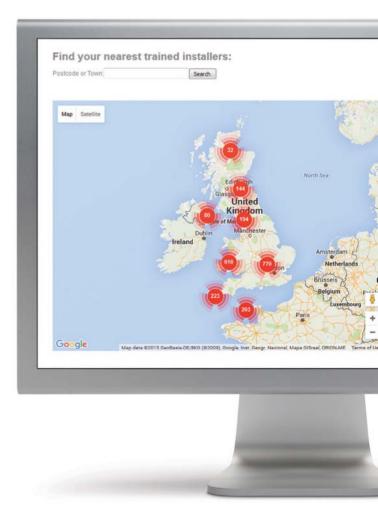
Note: Alarms must be RadioLINK compatible



Find an Expert Installer

Go to **www.aico.co.uk**

- Click on the 'Landlords' icon at the top of the page
- 3 Click the button to take you to the Trained Installer search
- 4 Simply type your town or postcode into the search bar at the top of the page to generate a list of your 10 nearest trained installers





Expert installers are trained in modules such as:

System Design -Smoke & Heat Alarms



System Design -CO Alarms



RadioLINK

AudioLINK



LOOK OUT FOR THIS LOGO

On the Aico website you can also find user instructions for all Aico products, request a copy of our support literature and read the latest updates from us.

Need any advice?

Contact us: W: www.aico.co.uk T: 01691 664100 E: support@aico.co.uk

Appendix: The British Standard BS 5839-6:2013

If you are building, extending or renovating a property you need the Council to sign off your smoke alarm system against Building Regs. Some Councils also run a licencing scheme for HMOs. These Building Regs and licencing schemes may mean they ask for a certain Grade and Category from the British Standard BS 5839-6:2013.

This is what it means:

GRADE

This tells you about the alarms themselves and how they are powered.

Grade A	Separate detectors, sounders and central panel control with back-up power supply – this grade must also comply with other British Standards for installation and power supply
Grade B	Separate detectors, sounders and central panel controls with back-up power supply
Grade C	Mains powered, alarms with back-up power supply and central control
Grade D	Mains powered, alarms with back-up power supply
Grade E	Mains powered alarms
Grade F	Battery powered alarms

Grades and categories

CATEGORY

This tells you the rooms and areas to install alarms in. The category is particularly important as it will affect how quickly a fire is detected and tenants are alerted to the danger.

LD1 - High Protection

- All areas where a fire could start, e.g.:
- Hallways
- Landings
- Living Room
- Kitchen
- Bedrooms
- Airing cupboards/ Meter cupboards

LD2 – Medium Protection

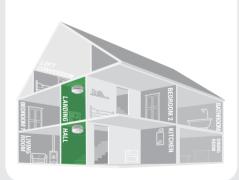
- Escape routes and high risk areas, e.g.:
- Hallways
- Landings
- Living Room
- Kitchen

LD3 – Minimum Protection

- Escape routes, e.g.:
- Hallways
- Landings







Note: If you have a larger property (more than 200m² or above 3 storeys) or a HMO (House In Multiple Occupation), there may be different requirements. If you're unsure, give us a call on 01691 664100.

Appendix: Effects of Carbon Monoxide (CO)

Parts per million (ppm) CO	Effects on an adult human body	A CO alarm* will alert you to the danger
100	Slight headache after 2 to 3 hours	Within 90 minutes
200	Mild headache, dizziness, nausea and tiredness after 2 to 3 hours	Within 40 minutes
400	Frontal headache and nausea after 1 to 2 hours. Life threatening after 3 hours	Within 3 minutes
800	Severe headache, dizziness and convulsions within 45 minutes	Within 3 minutes
1600	Headaches, dizziness and nausea within 20 minutes. Collapse, unconsciousness and death possibly within 1 to 2 hours	Within 3 minutes
3200	Headaches, dizziness and nausea within 5 to 10 minutes. Death within 25-30 minutes	Within 3 minutes

* A CO alarm manufactured to comply with BS EN 50291–1 and Third Party Tested to prove conformance eg. Kitemarked.

Installer's details

Contact your local installer to get your alarms fitted:

About Aico

Aico specialises in residential Fire & CO protection – it's all we do.

- Aico is a wholly owned subsidiary of Ei Electronics, the market leader in residential fire and CO safety products.
- We have more mains powered alarms fitted in homes across the UK than any other supplier.

Aico is a wholly owned subsidiary of Ei Electronics



Ei Electronics is the acknowledged market leader in residential fire safety products and is one of Ireland's largest indigenous electronics companies, employing more than 800 people.

Over 100 million alarms have been manufactured in Ireland since the company began over 50 years ago.

- All our alarms carry the Kitemark this shows the alarm has been tested to the relevant British Standard.
- Every alarm is tested multiple times during the manufacturing process.
- Aico, saving lives.

Acknowledgements

© Aico Ltd. Illustrations, photographs, part numbers, layout and style are considered property.

Any reproduction, in whole or in part, is strictly prohibited without written permission.

Our policy is one of continuous improvement; we reserve the right to amend designs and specifications without prior notice. Every care has been taken to ensure that the content is of this document are correct at the time of printing and we shall be under no liability whatsoever for any errors or omissions. AudioLINK is protected by Patent Application No. 11394025.8

Apple, the Apple logo, iPhone, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc.



Aico Ltd Mile End Business Park Maesbury Road, Oswestry, Shropshire SY10 8NN

Call us: 01691 664100

Fax: 01691 664111 email: support@aico.co.uk

Aico Ltd is a wholly owned subsidiary of Ei Electronics



Europe's Leader in Residential Fire + Gas Detection

Ei Electronics. Shannon. Ireland

