The standards have changed

FEBRUARY 2019

Fire detection, Fire Alarm systems and Carbon Monoxide detection to comply with the Tolerable Standard and the Repairing Standard.

- Are you covered?
- Are you meeting the new standards?

Produced in partnership by

SELECT

an Ei Company

Aico and SELECT are working in partnership to provide information on the new standards.

What is new?
All houses in Scotland are required to meet the 'Tolerable Standard'. This includes Social Housing properties and Private Dwellings. Any house which does not meet the Tolerable Standard is treated as not being in a reasonable state of repair and Local Authorities may use their statutory powers to require owners to carry out work to substandard housing.

By 1st February 2022, ALL HOMES should comply to the Tolerable Standard by having:

- Smoke alarms in every circulation space on each storey, such as hallways and landings
- Smoke alarms installed in the room most frequently used for general daytime living purposes
- Heat alarms installed in every kitchen
- All smoke and heat alarms should be interlinked
- Carbon Monoxide alarms to be fitted where there is a fuel burning appliance or a flue
- This applies to ALL homeowners and landlords

Why are the changes happening?

In 2017 the Scottish Government conducted a public consultation on 'Fire and Smoke Alarms in Scottish Homes' and in March 2018 announced that they would enact legislation requiring all homes to have satisfactory provision for detecting and warning of fire.

When do the changes start?
The Tolerable Standard is extended by the 'Housing (Scotland) Act 1987 (Tolerable Standard) (Extension of Criteria) Order 2019' and will apply to all housing in Scotland from **1st February 2022.**

What properties do the changes apply to?*

- Social Housing
- Private Rented Properties
- Domestic Dwellings

*Note: The requirements for the provision of fire detection and fire alarm systems for new dwellings, extensions or conversions as set out in the Scottish Building Standards Technical Handbook (Domestic) are unchanged.

For further information please visit:
www.gov.scot/publications/fire-and-smoke-alarms-tolerable-standard-guidance/

The Repairing Standard

Private landlords in Scotland are required by law to ensure that a rented house meets the 'Repairing Standard' (which was introduced in September 2007) at the start of a tenancy and throughout a tenancy.

The Scottish Government guidance on satisfactory provision aligned with the Scottish Building Standards Technical Handbook (Domestic) which essentially requires alarms to be installed in the same locations as in the Tolerable Standard, as defined on the opposite page. All smoke and heat alarms are to be mains powered with a battery backup - which is classified as a Grade D1/D2 system in BS 5839-6.

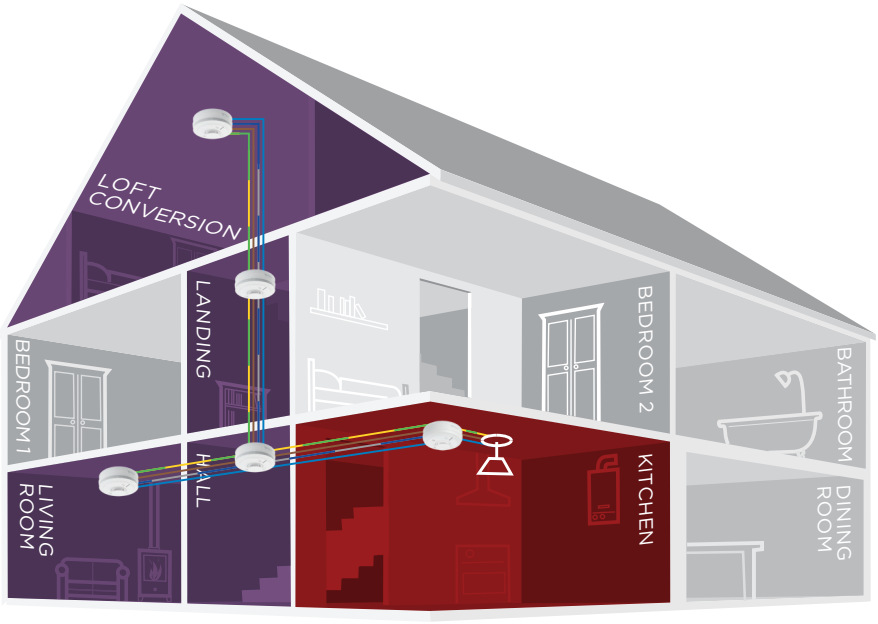
Under the 'Housing (Scotland) Act 2006 (Modification of the Repairing Standard) Regulation 2019' from **1st March 2019** the Repairing Standard can however now be complied with in respect of satisfactory provision for detecting and warning of fires in private rental properties by using either mains powered alarms or tamper proof long-life lithium battery alarms. This will therefore align with the Tolerable Standard for all Scottish housing, although having an earlier implementation date.

In the case of a house in multiple occupation (H.M.O), requiring to be licensed, a more stringent standard of provision for detecting and warning of fire will be required.

Where to fit alarms

At least one alarm should be fitted in the;

- Living room
- Hallway
- Landing
- Kitchen
- Loft Conversion



Any rooms you must pass through to reach the hallway from the kitchen or living room must have an alarm fitted (unless the living room or kitchen have their own escape route).

ALARM TYPE

Ei3024 Multi-Sensor Fire Alarm

ROOM

Hallway, Landing, Living Room, Bedroom, Dining Room

DESCRIPTION

- Optical and Heat sensor for a total fire response
- Mains powered with 10 year rechargeable lithium cell back-up
- Add an Ei3000MRF module for wireless interconnection and data extraction
- Compatible with other Aico mains powered units
- AudioLINK data extraction technology
- Dust compensation – unique self-monitoring mechanism
- easi-fit base
- 10 year life

ALARM TYPE

Ei3028 Multi-Sensor Heat & Carbon Monoxide (CO) Alarm

ROOM

Kitchen, Garage

DESCRIPTION

- Heat and Electrochemical CO sensor – Heat and CO coverage in one alarm
- Mains powered with 10 year rechargeable lithium cell back-up
- Add an Ei3000MRF for wireless interconnection and data extraction
- Compatible with other Aico mains powered units
- AudioLINK data extraction technology
- Heat or CO indicator on alarm head
- easi-fit base
- 10 year life

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ALARM TYPE

Ei3014 Heat Alarm

ROOM

Kitchen Garage

DESCRIPTION

- Fast response thermistor Heat Sensor
- Mains powered with 10 year rechargeable lithium cell back-up
- Add an Ei3000MRF SmartLINK module for wireless interconnection and data extraction
- Compatible with other Aico mains powered devices
- AudioLINK data extraction technology
- easi-fit base
- 10 year life

ACCESSORY

Ei3000MRF
SmartLINK Module

DESCRIPTION

- Powered from alarm head
- Add this to an Ei3000 series alarm to allow for SmartLINK interconnection and data extraction
- Compatible with other Aico wireless interconnection products
- Interconnect up to 12 alarms and devices wirelessly
- Remote Alarm Learn entry
- Transmits, receives and repeats RF specific data
- RF mesh architecture
- Unique House Coding feature
- RF data download

ACCESSORY

Ei100MRF RadioLINK+ Module

DESCRIPTION

- Add this to an Ei160e series alarm to allow for RadioLINK+ interconnection and data extraction
- Compatible with other Aico wireless interconnection products
- Eliminates tricky wiring runs
- Saves time, mess and money at installation
- Makes it easier to add in new alarms and accessories
- Data extraction capabilities
- Alarm self-monitoring function

What grade of alarm system can I fit?

The options for Private Dwellings, Social Housing and Private Rented Properties to meet both the Tolerable and Repairing Standards therefore alarms should be installed to fit the following criteria:

- One smoke alarm installed in the room most frequently used for general daytime living purposes (normally the living room/lounge)
- One smoke alarm in every circulation space on each storey, such as hallways and landings
- One heat alarm installed in every kitchen
- All smoke and heat alarms to be ceiling mounted
- All smoke and heat alarms to be interlinked

These alarms can consist of the following Grades:

Grade D1/D2 (mains powered with battery back up) alarms interlinked with wiring (hardwired) or wirelessly (by radio communication) throughout.

Grade F1 (tamper proof long life battery) alarms interlinked with wiring (hardwired) or wirelessly (by radio communication) throughout.

Mixed system; i.e. using a mix of both Grade D1/D2 and F1 which are interlinked either with wiring (hardwired) or wirelessly (by radio communication) or a combination of these.

When adding to an existing fire detection and fire alarm system in a dwelling, care should be taken to ensure that all alarms are **interlinked** and that **all alarms sound when any one device is activated**.

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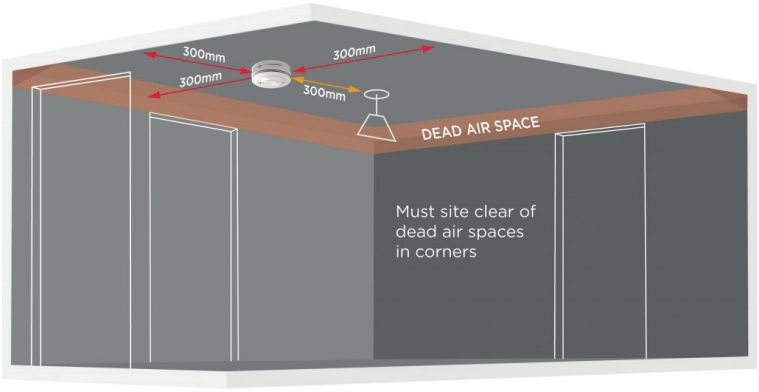
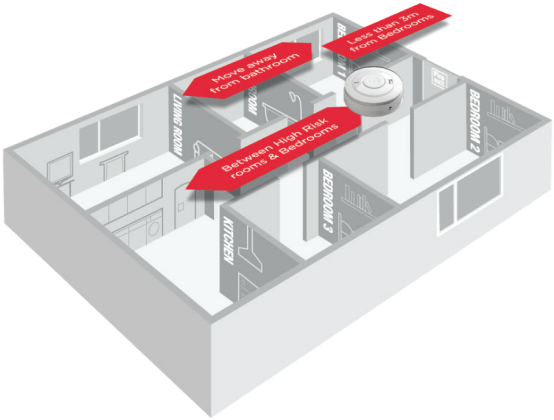
Where do I site smoke and heat alarms?

Alarms should be sited on the ceiling, as centrally as possible within the room/area they are installed.

Site at least 300mm from walls, light fittings or any obstructions – this is to ensure that they are outside of any 'dead air' spaces that occur in corners and spaces where the airflow may be blocked.



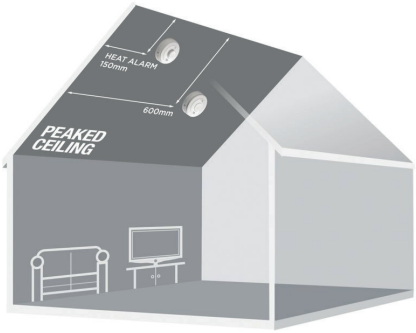
- There should be an alarm within 3m of every bedroom door to ensure audibility.
- Alarms should be positioned between high risk rooms and bedrooms.
- Alarms should not be sited within bathrooms or too close to a bathroom door as steam/moisture can affect them.



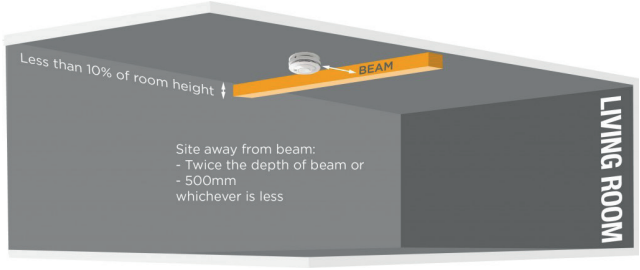
Other factors to consider:

Where stairways are present site alarms on the flat ceilings at the top and bottom of the stairs – do not site on the sloped ceiling directly above the stairs.

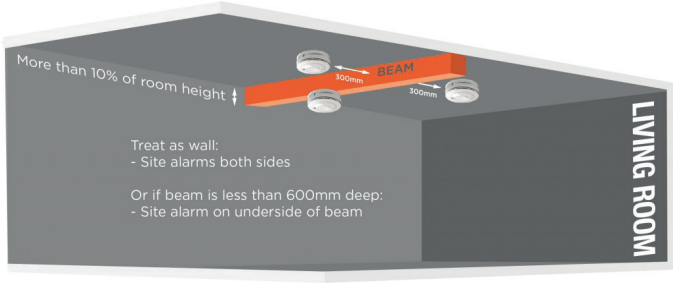
Peaked and sloped ceilings – for smoke alarms site a maximum of 600mm vertically down from the apex, for heat alarms a maximum of 150mm vertically down from the apex on the slope.



Beams (where the depth of the beam is less than 10% of the room height) – site the alarm twice the depth of the beam or 500mm, whichever is less.



Beams (where the depth of the beam is more than 10% of the room height) – treat the beam as a wall and fit alarms on both sides of the beam, or if the beam is less than 600mm deep site an alarm on the underside of the beam.

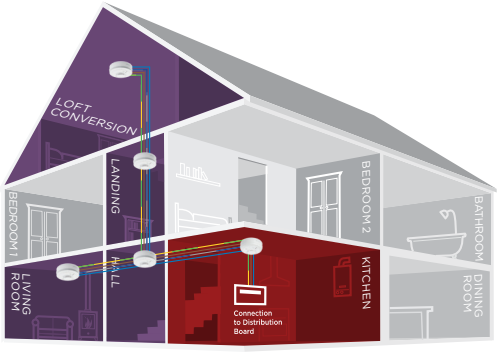


Where do I take the alarm supply from?

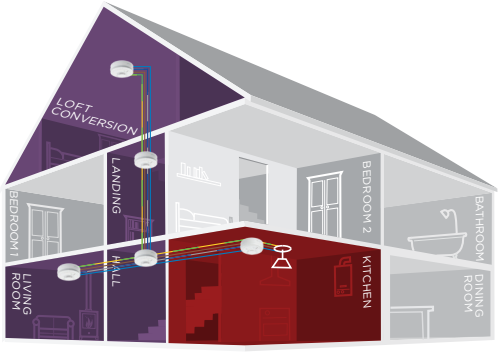
Mains powered smoke and heat alarms should be permanently wired to a circuit from either;

An independent circuit at the mains distribution board or **a regularly used local lighting circuit**.

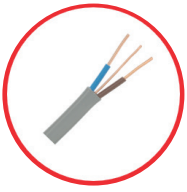
Power Supply
Hard-wired
Interconnection
Supply taken from
dedicated circuit
Max cable length - 250m



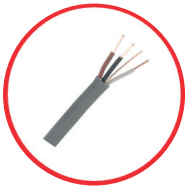
Power Supply
Hard-wired
Interconnection
Supply taken from
lighting circuit
Max cable length - 250m



What cable do I use?



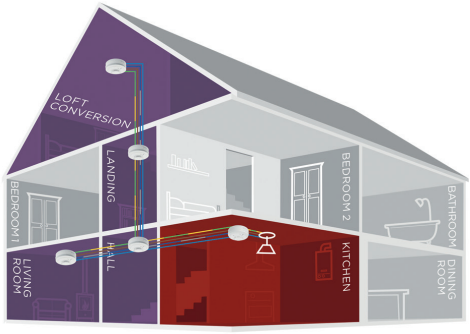
PVC/PVC T&E (Twin and Earth) - Solid copper core
Ring main (sockets), lighting circuit, shower, smoke alarms power supply



PVC/PVC 3-C&E (3 Core and Earth) - Solid copper core
2 - Way lighting circuit, smoke alarms with interconnect

Interconnection

All alarms should be linked (i.e interconnected).
If one alarm detects a fire, all alarms will trigger.



Option 1

Grade D1/D2 (Mains powered with battery backup)

(Escape routes, principal habitable rooms and kitchens)

Hard-wire Interconnection

Ei3024
All rooms except kitchen

Ei3014
Kitchen

Ei3028
Kitchen with CO appliance

Option 2

Grade D1/D2 (Mains powered with battery backup)

(Escape routes, principal habitable rooms and kitchens)

RF Interconnection

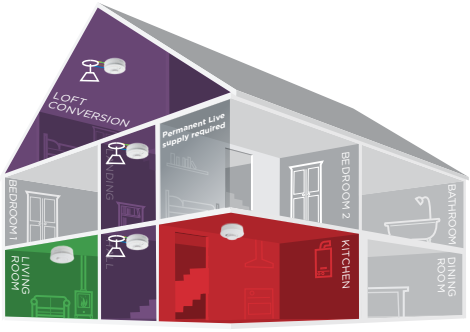
Ei3024
All rooms except kitchen

Ei3014
Kitchen

Ei3028
Kitchen with CO appliance

Ei3000MRF
Fit into all 3000 Series Alarms

SELECT



Option 3

Grade D1/D2 (Mains powered with battery backup)
Grade F1 (Battery powered)

(Escape routes, principal habitable rooms and kitchens)

RF Interconnection

Ei3024
All rooms except kitchen

Ei603RF
Kitchen

Ei650RF
Living room

Ei3000MRF
Fit into all 3000 series alarms

Option 4

Grade D1/D2 (Mains powered with battery backup)
Grade F1 (Battery Powered)

(Escape routes, principal habitable rooms and kitchens)

Hybrid Interconnection

Ei3024
All rooms except kitchen

Ei603RF
Kitchen

Ei650RF
Living Room

Ei3000MRF
Fit into one 3000 series alarm at the beginning or the end of the circuit

Would you know the **6** symptoms of Carbon Monoxide poisoning?

Unconsciousness

Collapse

Dizziness

Breathlessness

Headache

Nausea

Fire and Carbon Monoxide Alarm Updates

What is it all about?

All houses in Scotland are required to meet the 'Tolerable Standard'. This includes Social Housing properties and Private Dwellings. Any house which does not meet the Tolerable Standard is treated as not being in a reasonable state of repair and Local Authorities may use their statutory powers to require owners to carry out work to substandard housing.

What is Carbon Monoxide?

Carbon Monoxide (CO) is a killer. It is a toxic gas that has no colour, taste or smell – its impossible for human senses to tell that it is there. Exposure to low levels of Carbon Monoxide can lead to headaches and nausea. High levels can cause death within minutes.

The only way to protect against CO is to fit CO detection.

CO can be produced by any fuel burning appliance, such as a boiler, gas fire, gas cooker or wood burning stove. Even if an appliance is serviced regularly, faults can still develop in the flue or in-between services.

Satisfactory equipment for giving warning of Carbon Monoxide should comprise of:

CO detectors fitted in all rooms where there is a fixed combustion appliance (excluding an appliance used solely for cooking) or a flue.

CO detectors should comply with BS EN 50291 and be powered by a battery designed to operate for the working life of the detector.
The detector should incorporate a warning device to alert the users when its working life is due to expire.

Hard wired mains operated CO detectors complying with BS EN 50291 (Type A) with fixed wiring (not plug in types) may be used as an alternative, provided they are fitted with a sensor failure warning device.

CO detectors should be regularly maintained and tested in accordance with the manufacturer's instructions.*

*The extension to the criteria for meeting the Tolerable Standard aligns with the criteria for meeting the Repairing Standard which, since 1st December 2015, has required the provision of suitable CO detection in the private rental sector. Therefore, from 1 February 2021 the minimum level of protection required for CO detection will be the same across all housing types; i.e. Private Dwellings, Social Housing and Private Rented Properties.

When should Carbon Monoxide alarms be installed in dwellings?

The Tolerable Standard is extended by the 'Housing (Scotland) Act 1987 (Tolerable Standard) (Extension of Criteria) Order 2019', which will apply to all housing in Scotland from **1st February 2022** and requires:

The installation of satisfactory equipment for detecting fire and giving warning in the event of fire or suspected fire and satisfactory equipment for giving warning if Carbon Monoxide is present in a concentration that is hazardous to health.

The criteria for what is deemed satisfactory (which are briefly summarised below) are given in Scottish Government guidance available via the following link:

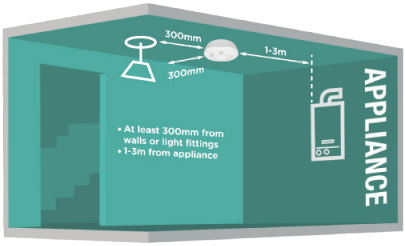
www.gov.scot/publications/fire-and-smoke-alarms-tolerable-standard-guidance/

Where do I site Carbon Monoxide alarms?

When installing Carbon Monoxide alarms it is important to note that there are different siting requirements depending upon if the alarm is being installed in the room with the fuel-burning appliance or not.

In a room with the fuel burning appliance:

- Alarms should be sited on the ceiling
- Should be fitted between 1m–3m from all potential sources of Carbon Monoxide
- Sited at least 300m from walls, light fittings or any obstructions – this is to ensure that they are outside of any 'dead air' spaces that occur in corners and spaces where the airflow may be blocked
- If the fuel burning appliance is in a confined space, for example a boiler room, then the alarm should be sited on the ceiling just outside the room



In a room **without** a fuel burning appliance:

- Alarms should be sited at breathing height
- If installed within a bedroom, this should be at the height of the bedhead

SELECT

Fire and Carbon Monoxide Alarm Updates

ALARM TYPE

Ei3018
Carbon Monoxide Alarm

DESCRIPTION

- Contains our proven Electrochemical CO sensor
- Mains powered with 10 year rechargeable lithium cell back-up
- Built in AudioLINK data extraction technology
- Compatible with other Aico mains powered devices
- Add an Ei3000MRF module for wireless interconnection and data extraction
- easi-fit base

ALARM TYPE

Ei208
Battery Carbon Monoxide Alarm

DESCRIPTION

- Contains our proven Electrochemical CO sensor
- Battery powered by a sealed in 10 year lithium battery
- Built in AudioLINK data extraction technology
- Pre-alarm LED indication gives early warning of CO
- Easy to fit twist on base and multi-fixings

ALARM TYPE

Ei208WRF RadioLINK+
Battery Carbon Monoxide Alarm

DESCRIPTION

- Contains our proven Electrochemical CO sensor
- Battery powered by a sealed in 10 year lithium cell
- Built in AudioLINK data extraction technology
- Connects wirelessly with all other Aico wireless interconnection products
- Built in RadioLINK+ interconnection and features
- Easy to fit twist on base and multi-fixings

Contact us - Select

SELECT is the trade association for the electrical contracting industry in Scotland. Our role includes the setting and monitoring of industry technical standards, developing and supporting industrial relations and improving health and safety in our sector.

We also work to improve industry trading conditions, through our membership of umbrella bodies in the construction and electrotechnical industries, such as the Specialist Engineering Contractors' Group, which lobbies on issues such as payment and procurement.

SELECT and its members are committed to apprentice and lifelong training and our Member companies employ over 3500 apprentices, making our modern Apprenticeship training scheme one of the largest in Scotland. In addition, our own training centre, based at our offices just outside Edinburgh carries out update training for over 3500 electricians each year.

For more information visit our website, **www.select.org.uk** or contact us on **0131 445 5577** or email **admin@select.org.uk**

Fire and Carbon Monoxide Alarm Updates

Contact us - Aico

Aico, an Ei Company, are a market leader in domestic Fire and Carbon Monoxide protection, pioneering new technologies and offering high quality Fire and Carbon Monoxide alarms. All alarms have been designed, developed and manufactured at the Ei Electronics factory in Shannon, Ireland, ensuring that Aico alarms meet UK standards and offer a wide range of sensor types to ensure every home is protected. Each alarm is tested multiple times before leaving the factory ensuring quality in all Aico alarms.

Aico offers in-house expert technical support as part of their dedication to excellent customer service.

The Technical Team can provide advice on alarm selection, siting and installation, as well as producing personalised specification documents. As well as the in-house support provided, Aico also have twenty-one Regional Specification Managers covering the whole of the UK to offer more personalised, local support.

Further to this, Aico offer a recently refreshed, free of charge CPD accredited training scheme, Expert Installer. Expert Installer is designed to provide Electrical Contractors with all of the information that they require to select, site, install and maintain Aico alarms to the highest quality.

It also ensures that attendees are up to date with the latest legislation and requirements.

Meet the Scottish Regional Specification Managers

Scotland North
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Scotland West
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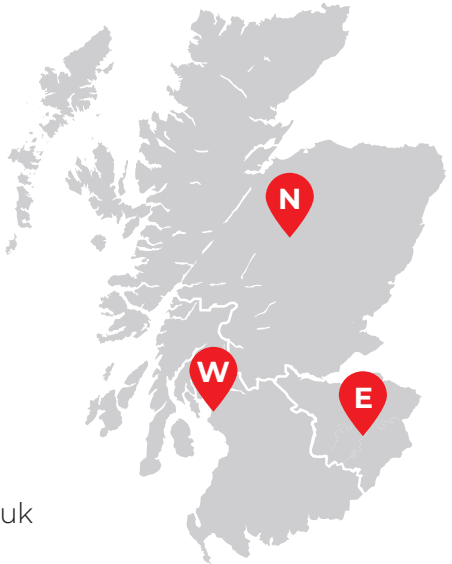

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Fire and Carbon Monoxide Alarm Updates

The Market Leader in Fire and Carbon Monoxide Protection

Do you require a mixed alarm system in your house?

With Aico,
Connection is easy.
Detection is quick.
Protection is simple.

The 600 SERIES, offers a complete range of battery powered alarms to interconnect with our 3000 Series mains powered alarms to protect your whole property.

Both series offer high performance technology with wireless interconnection options in the form of SmartLINK® for the 3000 Series and RadioLINK+® in the 600 SERIES.

All Aico Alarms are backed by rigorous 3-stage testing, comprehensive technical support and FREE Expert Installer training on selection, installation and maintenance.

RadioLINK+® SmartLINK®

MADE IN IRELAND RIGOROUSLY TESTED an Ei Company

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#AlarmsSaveLives

3000 Series 600 SERIES