



Product Guide for Smoke & Heat Alarms

Ahead on Quality
Ahead on Performance
Ahead on Features

**New 160 Series now
with REMOTE CONTROL
functionality**



The Solution Provider for

The Ei Range of Smoke Alarms from Aico offers the complete solution to meeting the new requirements of BS 5839: Pt.6: 2004 for Residential Fire Detection. Proven and reliable technology is combined with innovative product development to provide the best possible performance available in real fire situations. Various options are offered in order that specifiers and end users can select the ideal product for every individual installation with regard to the building and its occupants. All options offer value for money, unprecedented ease for the installer and aesthetically pleasing designs.

Our new RadioLINK product is the ultimate solution as it provides for wireless interconnection of the alarms and achieves 'best practice installations' in the easiest and most economical way.

The UK Market Leader

As Europe's leading manufacturer of smoke alarms with over 30 years experience, we currently outsell every comparable product on the market. Quality in our life saving products is never compromised. We have a record of industry firsts including the first BSI Kitemarked range, the first rechargeable back-up power supply in a smoke alarm, the first mains powered heat alarm, the first with hush technology across the range and the *only* Easi-fit design.

Ei now offer another first with the RadioLINK wireless interconnect system.



Smoke & Heat Alarm Installation Standards

What does the British Standard BS 5839: Part 6: 2004 Recommend?

This is the definitive code of practice to which Architects, Building Professionals, Enforcing Authorities, Landlords and Installers should refer for recommendations on the design, installation and use of smoke and heat alarms in the majority of domestic dwellings. Landlords in both the public and private sector are considered to have a duty of care to fit compliant smoke and heat alarms.

New Build Properties & Materially Altered Dwellings

One to three storeys - Grade D, LD2

- Mains alarms with battery back-up
- Optical smoke alarms in circulation spaces - hallways & landings e.g. Ei146 or Ei166RC with or without RadioLINK
- Heat alarm in the kitchen e.g. Ei144 or Ei164RC with or without RadioLINK
- Smoke alarm or heat alarm as best suited for the particular circumstance (see page 4 for definitions and usage), in the main living room
- All alarms should be interconnected
- The sound pressure level of the alarm signal measured at the doorway of each bedroom with the door open should be at least 85dB(A)

Existing Tenanted Properties

Two and three storey - Grade D, LD3

- Mains alarms with battery back-up
- Optical alarms in circulation spaces - hallways & landings e.g. Ei146 or Ei166RC with or without RadioLINK
- If a fire risk assessment shows the property or occupier to be a high fire risk, increase the number of alarms installed to meet the risk - e.g. follow new build recommendations for an LD2 installation
- All alarms should be interconnected
- The sound pressure level of the alarm signal measured at the doorway of each bedroom with the door open should be at least 85dB(A)

Single storey - Grade F, LD3

- Battery powered with a minimum battery life of 5 years e.g. Ei 10 year alarm
- Optical smoke alarm in circulation spaces - hallway e.g. Ei3105TYCH
- If a fire risk assessment identifies a concern that the occupier cannot or may not replace a battery, use mains alarms or mains with battery back-up
- If a fire risk assessment shows the property or occupier to be a high fire risk, increase the number of alarms installed to meet the risk - e.g. follow new build recommendations for an LD2 installation

System Grades and Categories

Six different grades of fire detection systems are defined and - generally speaking - the greater the fire risk the more comprehensive the system should be. Briefly, the Grades are as follows:

- GRADE A** - A full system with control and indicating equipment installed to BS 5839: Part 1
- GRADE B** - Detectors and sounders using simpler specified equipment
- GRADE C** - Detectors and sounders or alarms with central control
- GRADE D** - Mains powered alarms with an integral stand-by power supply
- GRADE E** - Mains powered alarms with no stand-by power supply
- GRADE F** - Battery powered alarms

Three different categories of life protection systems are defined. Briefly these are (starting at the highest):

- LD1** - Alarms in all circulation spaces that form part of escape routes and all areas where a fire might start, but not bathrooms, shower rooms or toilets
- LD2** - Alarms in all circulation spaces that form part of escape routes and rooms or areas that present a high fire risk
- LD3** - Alarms in circulation spaces that form part of escape routes

The Code emphasises that no one type of alarm is most suitable for all applications. Consideration must be given to the most suitable type of detection - optical, ionisation and heat (see page 4 for definitions and usage).



Residential Fire Detection

Service & Availability

At Aico we believe the very best alarm technology should be accompanied by the very best support possible. We offer unrivalled product information for end users of the product, specifiers and installers.

On the ground we have an experienced regionally based technical sales team, a highly trained customer service department and a responsive sales office. Our products are distributed to the trade locally via most electrical wholesalers throughout the UK. Expert training and on site installation advice is readily available.



& Regulations ... how do they affect me?

What do Building Regulations Demand in New Build and Materially Altered Dwellings?

Architects, builders and installers must comply with Building Regulations and install mains powered smoke alarms in new and materially altered dwellings.

England & Wales

Building Regulations Approved Document B (Fire Safety) minimum requirements are currently Grade D, LD3, but also defines that installation should be to BS 5839 Pt.6 and therefore Grade D, LD2 is recommended.

Grade D, LD2

- Mains alarms with battery back-up wired to a lighting circuit or a dedicated circuit
- Smoke alarms are required in the circulation spaces such as hallways and landings. In general optical alarms are recommended e.g. Ei146, Ei166RC
- Heat alarm to be installed in the kitchen where there is no door separating the kitchen from the circulation space, e.g. Ei144, Ei164RC
- Building extensions and room conversions, above ground floor level, require a Grade D, LD2 system to be installed in the property
- Smoke and heat alarms should be interconnected
- Mains powered smoke and heat alarms may be interconnected using radio-links

Scotland

Building Standards Technical Handbook No 2 (Fire) requirements are currently:

Grade D, LD3

- Mains smoke alarms with battery back-up
- Smoke alarms are required in the circulation spaces, hallways & landings
- Smoke alarms should be interconnected
- Alarms may be interconnected using radio-links

Northern Ireland

Building Regulations (Northern Ireland) Technical Booklet E (Fire Safety) requirements were amended in June 2005 to:

Grade D, LD2

- Mains Smoke alarms with a battery back-up
- Smoke alarms are required in the circulation spaces, hallways & landings
- A smoke alarm is required in the 'principal habitable room' e.g. living room
- A heat alarm is required in every kitchen
- Loft conversions require all the above to be installed
- Smoke and heat alarms should be interconnected
- Alarms may be interconnected using radio-links



More comprehensive information is provided in our free 'Guide To Residential Fire Detection'.

The Importance of Type & Interconnection of

ALARM SENSOR TYPES

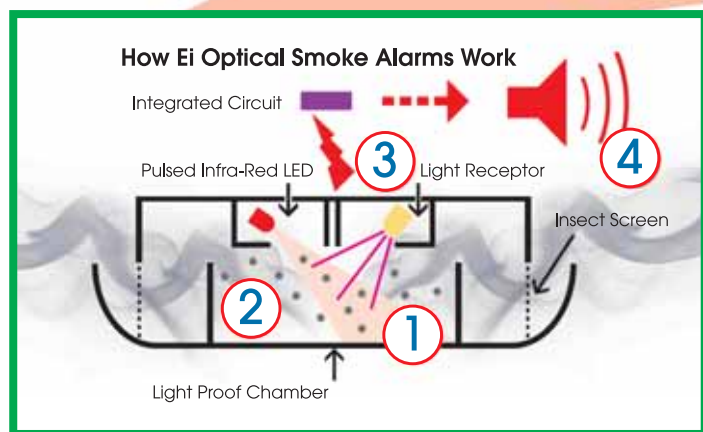
Optical Alarms where should they be used?

Optical sensors are more responsive to smouldering fires producing large particle smoke typical of fires involving furniture and bedding. They are more immune to invisible smoke produced by 'burning the toast' and similar cooking fumes. This makes them ideal for siting in hallways close to kitchens where false alarms from ionisation alarms may be a particular problem. The BS 5839: Pt.6: 2004 Standard recommends the use of optical alarms in circulation spaces of a dwelling, such as hallways and landings. Optical alarms are prone to false alarm if exposed to steam and should not be located too close to poorly ventilated bathrooms or shower rooms.

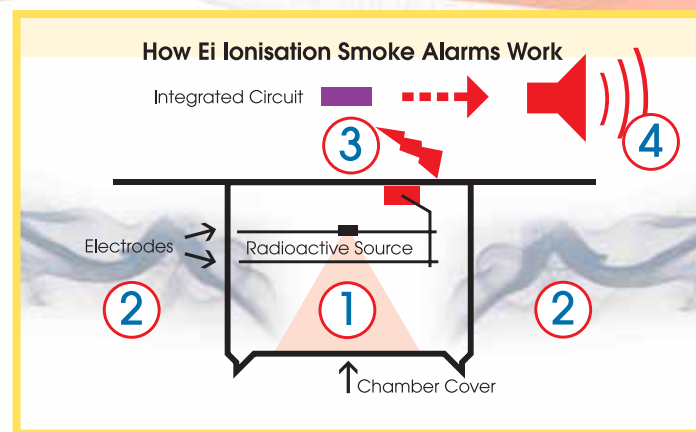
Ionisation Alarms where should they be used?

Ionisation type sensors are particularly sensitive to the almost invisible smoke produced by fast flaming fires. This makes them more liable to false alarm due to cooking fumes if sited in a hallway close to a kitchen. Ionisation alarms are less vulnerable to false alarms caused by dense tobacco smoke, excessive dust and insect ingress. The BS 5839: Pt.6: 2004 Standard recommends that ionisation alarms should not be used in hallways and landings, where there is a risk of false alarms caused by cooking fumes.

Note: Either type of sensor is generally suitable. The choice of sensor type should, if possible, take into account the type of fire that might be expected and the need to avoid false alarms.



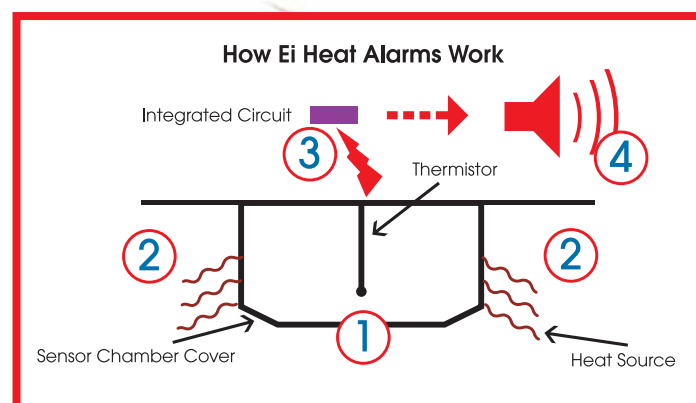
1. A light beam is pulsed in the sensor chamber every 10 seconds to 'look' for smoke. Any smoke present has to be visible to the naked eye so that the receptor can 'see' it. If no smoke is detected, the alarm will remain in a standby state.
2. When large particle smoke is detected, the light beam will be scattered onto the light receptor.
3. This will then send an electrical signal to the IC (Integrated Circuit).
4. If two consecutive signals are received by the IC, the alarm will sound.



1. Inside the sensor chamber is a minute (safe) radioactive element that ionises the air within. This causes a small current to flow in the chamber and this will remain constant for the life of the alarm unless smoke particles enter.
2. When smoke enters the sensor chamber, the balance of the current is disturbed.
3. This is detected by the electronics in the alarm circuitry and a signal is sent to the Integrated Circuit (IC).
4. This causes the alarm sounder to operate.

Heat Alarms where should they be used?

Heat alarms are less likely to cause false alarm problems as they are not responsive to any type of smoke or fumes, only heat. Because of the potential for a slower response than smoke alarms, they should only be used in a fire alarm system that also includes smoke alarms, and all of the alarms must be interconnected. The BS 5839: Pt.6: 2004 recommends that heat alarms should be used in kitchens. It goes on to suggest that they may also have a role to play in the main living room but they should not be installed in circulation spaces or areas where fast response to fire is required.



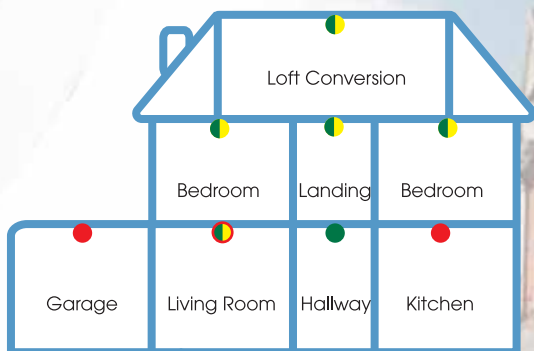
1. A thermistor (a heat sensitive resistor) is sited in the sensor chamber of the alarm.
2. When the temperature rises the resistance of the thermistor reduces.
3. The IC continuously monitors the resistance of the thermistor. When this indicates the temperature is over 54 °C the IC sends a signal to the sounder circuit.
4. The alarm sounder then operates.

Selection, Positioning, Wiring Smoke & Heat Alarms

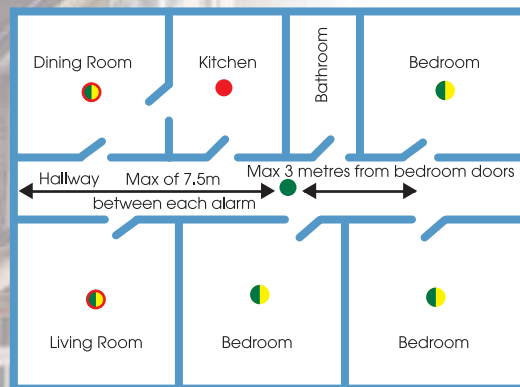
SITING DIAGRAMS

Which Alarms to Fit Where

Average two storey house



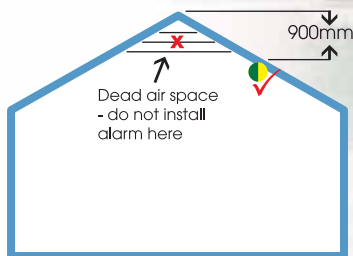
Single storey dwelling



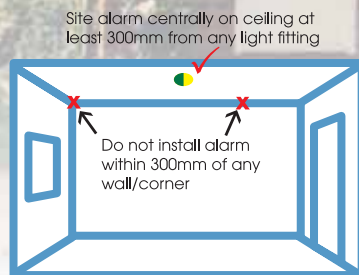
- Optical or Ionisation smoke alarm as best suited for the particular circumstances
- Optical smoke alarm
- Smoke or heat alarm as best suited for the particular circumstances
- Heat alarm

Do not install smoke or heat alarms in bathrooms, shower rooms or toilets

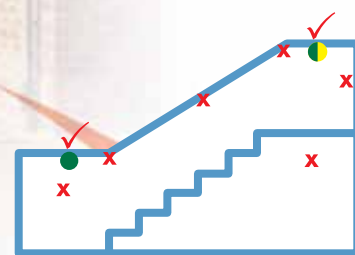
The control switch when used should be fitted at an easy access point preferably in the hall or living area.



Siting alarm on a sloping ceiling



Siting alarm in a room

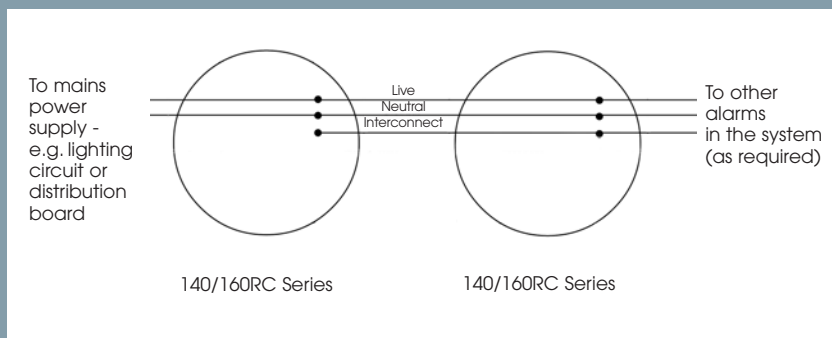


Siting alarms in hallways and landings

- Correct ceiling siting position for alarms
- Do not install alarms here

For additional guidance please use the Customer Service Helpline 0870 758 4000

Simple Interconnect Wiring for all Mains Powered Smoke and Heat Alarms



Interconnection of alarms is vital to ensure an activated alarm is heard throughout the property by all occupants. Interconnecting Ei mains powered alarms has never been simpler using standard 3 core cable.

Important

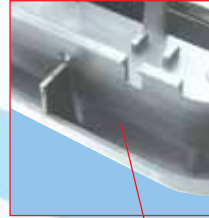
Interconnection is vital to ensure the alarm is heard throughout the property by all occupants.

Innovative Design & Quality Features



Ei's unique large volume optical smoke chamber & sophisticated electronics have a proven track record of reliability and high efficiency detection. Longevity and resistance to false alarms as well as reliable protection from electromagnetic interference has also been proven over the last 15 years.

Smoke Alarms are sophisticated electronic devices. Protection from external contamination is vital to maintain the fire detecting sensitivity of the product and to minimise



false alarms. A fine mesh insect screen reduces false alarms caused by insect contamination and fibres, whilst allowing free access of smoke to the sensor chamber. A dust cover is also provided for protection on site and prior to occupancy.

At 85dB(A) at 3 metres our alarms are loud. Unique encased horn assembly has the piezo disc securely held with silicone mastic to prevent creepage and premature horn failure. Additionally soldered contacts prevent failures due to corrosion and arcing associated with more commonly used pressure contacts.

The hush button provides for false alarm control on all Easi-fit models. Also provides manual test function.

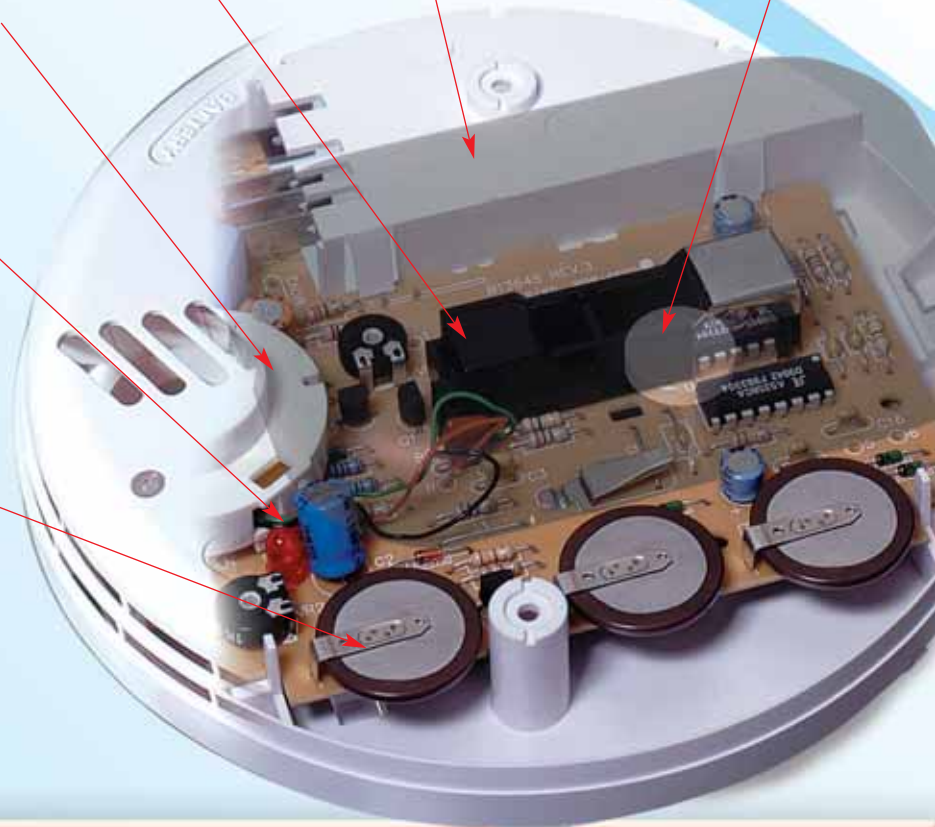


Self monitoring and indicating LEDs & audible warning signals. Each alarm self tests every 40 seconds. Two separate LED indicators are used to indicate healthy mains supply, fault, battery fault, alarm status and low cell/battery warning.

Ultra high performance vanadium pentoxide lithium rechargeable cells are used on the 160RC Series, 150 Series and RadioLINK bases. These cells offer the best back-up possible and are designed to outlast the alarms.

- A precision charging circuit ensures peak cell efficiency at all times
- Cells provide up to six months back-up even without mains power

- Alkaline battery in the 140 Series designed to last up to 4 years in standby



THE FASTEST SIMPLEST INSTALLATION POSSIBLE...



Fitting an Easi-fit mains powered alarm really is this simple:

1 Screw the mounting plate supplied with the alarm to the ceiling during first fix. No separate enclosure is required.

2 Wire up terminals on the mounting plate and clip on the protective cover.

3 Slide the alarm into place. There's no need to wire up a separate lead and connector.

REMOVAL

The alarm is removed by releasing the tamper-resistant clip with a screwdriver and sliding it off. The protective cover ensures that the mains cables are never exposed.



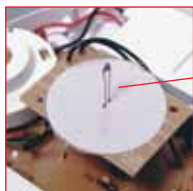
Product Specifications



Multiple cable entries and surface wiring knockouts.



Large, clearly marked wiring connections.



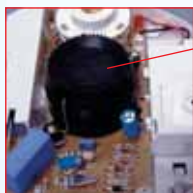
Heat alarms feature fixed temperature fast response thermistor sensor, ideal for protecting kitchens & garages.



Precision fin design allows fast access of smoke to the sensor.



Multi purpose fixings supplied for use in either plasterboard, concrete or wood.



High performance, corrosion resistant ionisation chamber responds quickly to flaming fires and is proven in millions of applications. Exceptional reliability in a real fire situation.



NEW

Control option 160RC Series allow Test, Hush and Fire Locate from an accessible switch position

NEW

	RadioLINK Base	160RC Series	150 Series	140 Series	Modify RF System Control Devices	Modify Hand wired System Control Devices
Remote Control System Option	✓	✓				
Ionisation Sensor		✓	✓	✓		
Optical Sensor		✓	✓	✓		
Heat Sensor		✓	✓	✓		
Mains Supply	✓	✓	✓	✓		
Lithium Rechargeable Cell Back-up	✓	✓	✓			
Alkaline Battery Back-up				✓		
Lithium Battery					✓	
Interconnectable	✓	✓	✓	✓		
85dB(A) @ 3m Sound Output		✓	✓	✓		
Easi-fit System	✓	✓		✓		
Test, Hush Feature		✓	✓	✓	✓	✓
Test, Hush and Fire Locate Feature	✓	✓				
Radio-Frequency Interconnect	✓				✓	
High Performance Ionisation Chamber		✓	✓	✓		
Large Volume Optical Chamber		✓	✓	✓		
Insect Screen on Optical Chamber		✓	✓	✓		
54-62 °C Thermistor Temperature Range		✓	✓	✓		
Fast Access Smoke Finning		✓		✓		
LED Power Indicator		✓	✓	✓	✓	
LED Auto Circuit Test Indicator		✓	✓	✓		
LED Hush Mode Indicator		✓	✓	✓		
LED Alarm State Indicator	✓	✓	✓	✓		
LED Transmission/Reception Indicator	✓				✓	
LED House Coding Indicator	✓				✓	
Audible Fault Warning		✓	✓	✓		
Audible Low Battery Warning		✓	✓	✓		
Automatic Hush Mode Reset		✓	✓	✓	✓	✓
Connection with Battery Missing Prevented				✓		
Non-Reversible Mains Connector Lead			✓			
Unit Activation Upon Connection	✓	✓	✓	✓		
Tamper-proof Rechargeable Cells	✓	✓	✓		✓	
Soldered Horn Contacts		✓	✓	✓		
Easi-see Easi-connect Wiring Terminals	✓	✓		✓		
Mains Wiring Cable Cover	✓	✓		✓		
Multiple Cable Entries	✓	✓		✓	✓	✓
Removable Mini Trunking Entry		✓				
Foam Sealing Gasket	✓	✓	✓	✓		
Anti-tamper Locking Catch	✓	✓	✓	✓		
Multiple Fixing Holes	✓	✓	✓	✓	✓	✓
Date Code Identification	✓	✓	✓	✓	✓	✓
BS Kitemarked						
CE Marked	✓	✓	✓	✓	✓	✓
EMC Conformance	✓	✓	✓	✓	✓	✓
BS & Building Reg. Grade D Compliance	✓	✓	✓	✓		
BS & Building Reg. Grade E Compliance	✓	✓	✓	✓		
Class II Double Insulated	✓	✓	✓	✓	✓	✓
UV Stabilised Moulding	✓	✓	✓	✓	✓	✓
Installer Instructions		✓	✓	✓		
User Instructions		✓	✓	✓		
Combined Installer/User Instructions	✓				✓	✓
Dust Cover Supplied		✓	✓	✓		
Distribution Board Label Supplied		✓	✓	✓		
Multi Purpose Fixings Included	✓	✓	✓	✓		
Typical Footprint Dimensions (mm)	150	150	125x100	140	90x90	90x90

Easi-fit

All smoke alarms comply with:
BS 5446: Pt.1: 2000

All heat alarms comply with:
BS 5446: Pt.2: 2003



NEW 160RC Series - Mains Powered Alarms

Specifiers F

MAINS POWERED ALARM WITH 10 YEAR+ RECHARGEABLE LITHIUM CELL

The 160RC Series, Easi-fit mains powered smoke and heat alarms are our highest specification range, especially so when coupled to the RadioLINK system. Designed for the specifier, installer and end user demanding the very highest standards of safety, performance and reliability you'd expect from Europe's leading manufacturer of mains powered fire detection products. Almost all practical duty of care provisions are catered for. With no risk of casual back-up cell removal, the power supply is virtually guaranteed against any external threat to the energy supply. Risks of false alarms are minimised and installation costs are lower due to ease of installation and the all round quality of the outstanding 160RC Series.

WHY RECHARGEABLE VANDIUM PENTOXIDE LITHIUM CELLS?

The 10 year+ technology used in the 160RC Series provides the most effective and reliable back-up power available. Maintenance requirements are negligible. The cells used are the only rechargeable cells with a realistic ten year life expectancy confirmed by manufacturer Panasonic. Constantly 'topped up' by the mains, they out-perform lithium primary batteries, capacitors or rechargeable cells currently in use in other smoke alarms.

- Environmentally friendly - no special disposal requirements
- A precision charging circuit ensures peak efficiency at all times
- 6 month back-up even without mains power
- Cells supplied fully charged providing 6 months initial standby capacity before mains powering
- Proven 10 year+ life expectancy
- Cells are soldered for reliable long term connection
- Terminals are laser welded for reliability
- Wide temperature range - 20°C to +60 °C
- No battery replacement requirement



Ei166RC Optical With Hush

- More responsive to slow smouldering fires
- Large volume high performance optical chamber with proven extended life capability
- Fine mesh insect resistant screen

Ei161RC Ionisation With Hush

- Responds quickly to fast flaming fires
- Unique and proven long life ionisation smoke chamber

Ei164RC Heat With Hush

- Ideal for protecting kitchens and garages and other areas prone to false alarms
- Fixed temperature fast response thermistor sensor, range 54° - 62°C
- BS 5446: Pt.2: 2003 Class A1

New 160 Series now with REMOTE CONTROL functionality

RADIOLINK COMPATIBLE

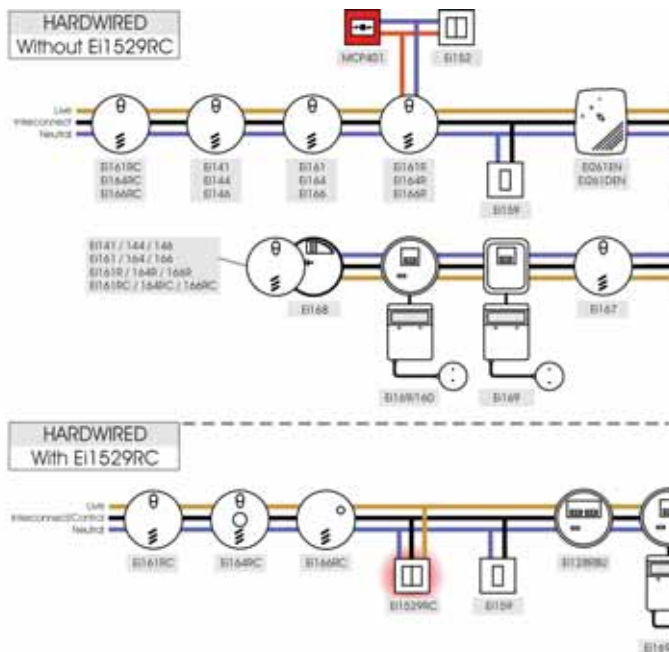
COMPREHENSIVE 5 YEAR GUARANTEE

FEATURES EASI-FIT DESIGN TECHNOLOGY



Ei164RC Heat
BS 5446: Pt.2: 2003

COMPATIBILITY CHART FOR NEW



With 10 Year+ Rechargeable Lithium Cells First Choice



Ei161RC
Ionisation
BS 5446:
Pt.1: 2000

Ei166RC
Optical
BS 5446:
Pt.1: 2000

**COLOUR CODED
PACKAGING
FOR EASY
RECOGNITION**



TEST, HUSH AND FIRE LOCATE FROM AN ACCESSIBLE SWITCH POSITION

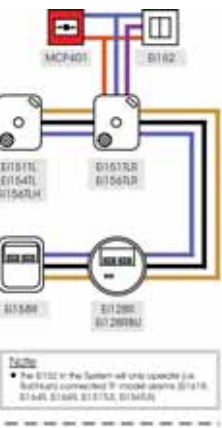
New Aico RC Series smoke alarms are quick, simple and economical to install, with all the control circuitry built into the unit. There's no need for extra bases or terminals. All units use the standard Aico Easi-fit baseplate and are compatible with existing 160 series alarms if no control device is to be introduced.

Wiring is equally simple. With the control and interconnect signals being sent down the same cable, the wiring for a typical RC alarm system is exactly the same as a standard interconnect mains alarm system. This simplifies the wiring, cuts installation time and removes the need for additional wires or cable types.



3-Core & earth wiring as per standard alarm system

RC MODELS



The New 160 RC series alarms can be used effectively in larger and more complex applications including apartment blocks, large houses, HMOs and smaller commercial premises. The alarms can be integrated with a number of additional devices such as lighting beacons, sounders, break glass units and CO alarms as part of a comprehensive alarm system.

THE NEW Ei1529RC CONTROL SWITCH

This simple remote smoke alarm control switch offers four vital functions and can be positioned for convenient access, similar to a light switch. Supplied with a surface box, it can be flush mounted using a standard 35mm deep electrical socket box.

- TEST** Test all alarms from one convenient switch
- HUSH** Any nuisance alarm can be quickly and easily silenced
- LOCATE** Allows the source of the alarm to be identified.
- MAINS CHECK** The Test function will not operate without mains power, providing a simple way to test the mains supply

MANUAL CALL POINT

MCP401RC Manual Call Point Surface Mount for use with all Ei mains alarms

RadioLINK Wireless

For use with Ei60RC Series

THE COMPLETE SOLUTION TO THE NEW BS 5839: Pt.6: 2004 REQUIREMENTS

Interconnecting mains powered smoke alarms is essential to provide the earliest possible warning of a fire. Fire statistics show that the quicker occupants are alerted to a fire, the less risk of death or injury there is. Furthermore, property damage is also reduced.

With RadioliNK, mains powered smoke alarms are interconnected by wireless signals rather than cabling. It's so much simpler, more convenient - and easier to change or extend as and when required.

The new Ei168RC RadioliNK base is now set as a multi-level repeater as standard. This means it can now receive, transmit and re-transmit to achieve multiple signal paths. The result? Increased coverage in houses of a larger floor area and with up to 30 alarms in the system. The multiple path capability allows the system to manage many RF impenetrable structures in the property, which may have previously blocked signals. House coding and commissioning has been simplified and is now a faster operation.

It's an upgrade which makes RadioliNK even better suited to more comprehensive alarm systems - offering greater coverage and protection.



The Benefits of RadioliNK

- Best Practice for single family dwellings, apartments and HMOs
- Easi-fit technology saves time and money on every installation
- Fixed cost interconnection
- Wire-free interconnection and zoning capability
- Fully upgradeable system - future proof
- Reliable interconnection
- Minimises risk of accidental mis-wiring
- No false alarms from normal electrical transients
- Range of optional system control devices
- RadioliNK uses tried, tested and proven radio transceiver technology
- Use with Ei160RC Series alarms - already proven in millions of installations nationwide

Code	Description
Ei168RC	RadioLINK Interconnect Base
Ei428	RadioLINK Remote Relay
Ei411H	Wireless Remote Control Switch with Hush
Ei407	Wireless Remote Manual Call Point
Ei410	Wireless Remote Control

Interconnection ies Smoke & Heat Alarms



The Ei168RC RadioLINK Base Unit

At the heart of the RadioLINK system are the Ei168RC base units, which are fully compatible with any Ei160RC Series alarm. It is from these that radio signals are transmitted and received.

An Ei168RC base is required for each of the alarms in the system.

- Mains powered with rechargeable 10 year+ lithium cell back-up
- Radio transceiver 868.499 MHz
- Unique Easi-fit design with integral terminal block
- Simple and secure house coding system
- Interference free



RadioLINK SYSTEM CONTROL DEVICES

Ei411H Wireless Remote Control Switch

NEW

- When used in conjunction with RC alarms, with the Ei168RC RadioLINK base, the switch offers three vital remote control functions.
- **TEST** - Provides a full system test equivalent to pressing the Test button on all units simultaneously
- **HUSH** - Allows the silencing of any possible nuisance alarms
- **LOCATE** - Allows the source of the alarms to be identified. This information is also held in the product memory



Ei428 Remote Relay Module

- Mains powered with rechargeable 10 year+ lithium cell back-up to ensure the relay operates even during a mains failure
- Interfaces with other systems, e.g. warden call and other signal devices



Ei407 Wireless Manual Call Point

- Allows manual testing of the system
- Allows manual alarm to warn other residents



Ei410 Wireless Remote Control - Hand Held

- All the same features and functions as the Ei411H (above) - but built into a small key fob for personal use
- Fitted with lithium button cell



Easy to fit

1

Wire in each Ei168RC RadioLINK base to the mains electricity supply.



2

Slide a 160RC Series alarm on to the Ei168RC base which will automatically activate the rechargeable back-up cells, and then repeat this procedure for all the alarms in the system.



3

House code each alarm in the system.



140 Series - The Contractor's First Choice

For New Build & Owner Occupied Properties

MAINS POWERED ALARMS WITH ALKALINE BATTERY BACK-UP

Designed for applications where the budget is a key consideration and where maintenance is in the hands of the owner occupier or there is no requirement for lithium power cell back-up. The 140 Series provides an alkaline battery back-up instead of rechargeable cells. Further cost savings are possible through the innovative and totally unique Easi-fit technology, as there is no need to purchase additional wiring enclosures, mounting kits, leads or connectors. In a field where time is money, the fact that Easi-fit alarms are simpler and quicker to install ensures even greater savings. Now with Easi-fit fixing pack, suitable for use on plasterboard, concrete or wood surfaces.

Ei141
Ionisation
BS 5446:
Pt.1: 2000

Ei146
Optical
BS 5446:
Pt.1: 2000

Ei146 Optical With Hush

- More responsive to slow smouldering fires
- Advanced optical chamber with proven extended life capability
- Fine mesh insect resistant screen
- Alkaline battery supplied already connected to reduce installation errors (does not draw power until alarm is fitted to the mounting plate)
- Hush button for false alarm control
- Interconnects with other Ei mains powered smoke and heat alarms
- Separate mains and warning LEDs
- Time and money saving Easi-fit design
- Protective dust cover supplied
- 5 year guarantee

Ei144
Heat
BS 5446:
Pt.2: 2003



Ei141 Ionisation With Hush

- Responds quickly to fast flaming fires
- Unique and proven long life ionisation smoke chamber
- Alkaline battery supplied already connected to reduce installation errors (does not draw power until alarm is fitted to the mounting plate)
- Hush button for false alarm control
- Interconnects with other Ei mains powered smoke and heat alarms
- Separate mains and warning LEDs
- Time and money saving Easi-fit design
- Protective dust cover supplied
- 5 year guarantee

Ei144 Heat With Hush

- Ideal for protecting kitchens and garages and other areas subject to false alarms
- Fixed temperature fast response thermistor sensor, range 54° - 62°C
- Alkaline battery supplied already connected to reduce installation errors (does not draw power until alarm is fitted to the mounting plate)
- Hush button for false alarm control
- Interconnects with other Ei mains powered smoke and heat alarms
- Separate mains and warning LEDs
- Time and money saving Easi-fit design
- Protective dust cover supplied
- 5 year guarantee
- BS 5446: Pt.2: 2003 Class A1



**COMPREHENSIVE
5 YEAR
GUARANTEE**

**RADIOLINK
COMPATIBLE
WITH Ei168**
(not compatible with Ei168RC)

**COLOUR CODED
PACKAGING
FOR EASY
RECOGNITION**

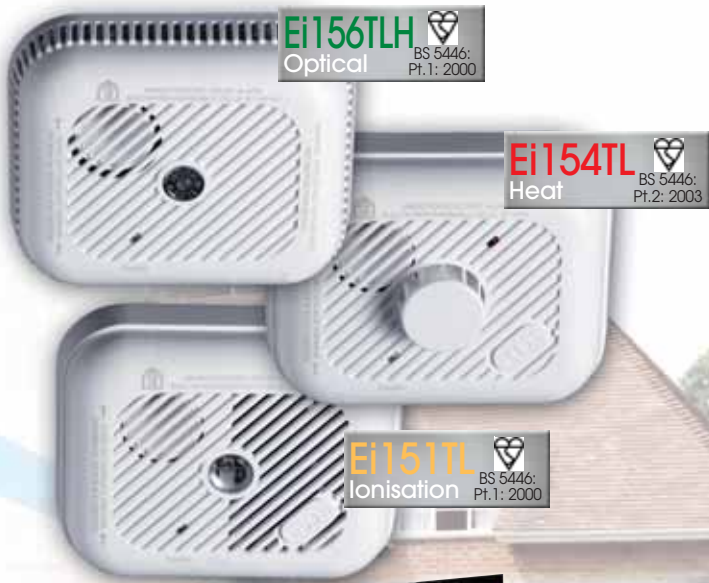
Surface Mount Kits & Relays

For 140 Series alarms see page 14



Code	Description
Ei146	Optical with Hush & Mounting Plate
Ei141	Ionisation with Hush & Mounting Plate
Ei144	Heat Alarm with Hush & Mounting Plate
Ei127	Surface Mount Kit
Ei128R	Surface Mount Kit with 5 amp Relay
Ei128RBU	Surface Mount Kit with 5 amp Relay and 10Yr+ Rechargeable Lithium Cells

150 Series - Local Authority & Housing Association Replacement Range



MAINS POWERED ALARMS WITH 10 YEAR+ RECHARGEABLE LITHIUM CELL BACK-UP

Advanced detection technology coupled with superior 10 year+ rechargeable lithium cell back-up has made the 150 Series a market leader and the first choice for specifiers nationwide. The 150 Series' popularity and reliability over the last 15 years is proven by the fact that several million units have now been specified and installed by Councils and Housing Associations and are currently protecting households throughout the UK and other countries. Many of these alarms may now be entering the end of their useful life cycle and should be considered for replacement. New 150 Series product will fit the majority of existing installed bases and can therefore offer the most economical replacement programmes.



COLOUR CODED PACKAGING FOR EASY RECOGNITION

COMPREHENSIVE 5 YEAR GUARANTEE



Surface Mount Kits & Relays
For 150 Series alarms see page 14

Code	Description
Ei156TLH	Optical with Hush
Ei151TL	Ionisation with Hush
Ei154TL	Heat Alarm

Surface Mount Kits for 150 Series alarms are also still available from stock

Alarm Systems for the Deaf & Hearing Impaired

People with hearing difficulties require a different approach to fire protection, as a conventional alarm sander will not be sufficient for their needs. Aico's range of alarms for the deaf and hearing impaired are the only units currently available from an experienced smoke alarm manufacturer. They are also available with RadioLINK for ease of installation.



System Features and Benefits of all models

- Mains powered control panel with rechargeable battery back-up
- High intensity integral strobe light
- Auxiliary socket for connection of additional optional strobe lights.
- Vibrating pad for placing under a pillow or mattress
- Supplied with plug-in or hard wired option
- Capability for interconnection of up to 12 alarms
- Test button on control panel for testing the system
- Connections are monitored to check integrity of system
- Alarm clock input facility
- Remote trigger option
- Pager output facility
- Compatible with RadioLINK system (Ei169RF, Ei176RF)
- Systems available for mains or LV operated smoke alarms



Code	Description
Ei169	Mains Deaf Alarm Kit for 150 Series
Ei169/160	Mains Deaf Alarm Kit for 160RC Series
Ei169RF	RadioLINK Mains Deaf Alarm Kit for 160RC Series
Ei175	Complete with LV Ionisation Smoke Alarm
Ei176	Complete with LV Optical Smoke Alarm
Ei176RF	RadioLINK LV Optical Smoke Alarm Kit
Ei178	Additional Strobe
Ei174	Additional Vibration Pad
Ei3105RF	Additional RadioLINK LV Optical Smoke alarm

Other Smoke & Heat Alarms and Control

Low Voltage Smoke & Heat Alarms

In properties where there is a requirement to connect smoke and heat alarms to a low voltage security system, or Warden Call System, the Ei180 Series alarms can provide the ideal solution.



Code	Description
Ei181	10-30VDC Ionisation Smoke Alarm
Ei184	10-30VDC Heat Alarm
Ei186	10-30VDC Optical Smoke Alarm
Ei100R	12VDC Ionisation Smoke Alarm
Ei103R	12VDC Heat Alarm
Ei105R	12VDC Optical Smoke Alarm

10 Year Alarms



For applications where the budget will not permit the installation of mains powered smoke alarms or there is a need to quickly provide safe and reliable protection to a large number of properties, the best solution is to specify Ei smoke alarms powered by 10 year + lithium battery cells.



Code	Description
Ei100TYC	Ionisation Smoke Alarm
Ei3105TYCH	Optical Smoke Alarm

Surface Mount Kits & Relays for 140, 150 & 160RC Series

Surface Mount Kits enable easier installation of the alarms. Relays provide the option of signalling to almost any other device. Relays can be used to signal to:

Warden Call Systems
Sounders
Smoke Vents

Strobes
Door Closers
Other Fire Alarm Systems



140 and 160RC Series options

- Ei127 -** Surface Mounting Kit for use on uneven ceilings or where complicated wiring is used.
- Ei128R -** As Ei127 with integral relay (Not compatible with RC Models).
- Ei128RBU -** As Ei128R with 10yr+ rechargeable cell back-up supply.
- Ei128COV -** Cover to enable Ei128R/Ei128RBU to be remotely sited.

RadioLINK

- Ei428 -** Remote relay module for use with RadioLINK system only, see page 11.

Devices

Carbon Monoxide (CO) Alarms

ANCILLARY PRODUCTS

MCP401RC Manual Call Point

- Supplied complete with surface mount box
- Testing key supplied
- Supplied with non-breakable operating element
- LPC approved, conforms to BS EN 54-11
- Can be used with 140, 150, 160RC Models



SAB300 Remote Strobe Xenon Beacon

- Mains powered
- For internal or external use
- Flash energy of 3 watts and flash frequency of .9Hz
- Clear or red lens options
- For operation via an Ei158R or Ei128R relay



SABV4 High Intensity Strobe Xenon Beacon

- Mains powered
- Ideal for use where standard strobes may not be sufficiently visible
- 5 joule high intensity flash
- Low current consumption
- Red or opal lens option
- For operation via an Ei158R or Ei128R relay



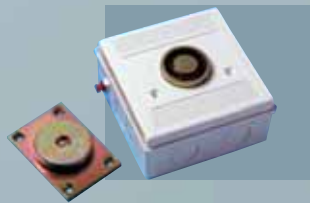
YO3 Remote Sounder

- Mains powered
- Use in areas where a warning is required - but a detector isn't
- For internal or external use
- Switchable sound outputs from 97-100dB(A)
- For operation via an Ei158R or Ei128R relay



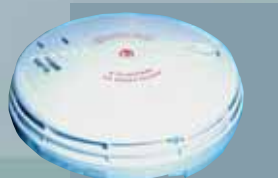
MDH230 Magnetic Door Holder

- Mains powered
- Will automatically release a fire door in the event of a fire
- Test/Override button feature
- Low current consumption
- For operation via an Ei158R or Ei128R relay



Ei167 Remote Sounder

- Interconnects with all mains operated smoke and heat alarms
- Ideal for use where an alarm but no detection is required
- AC mains indicator light



Further details of all the products featured on these pages are available from our Customer Service Helpline on **0870 758 4000** or visit our website **www.aico.co.uk** and download our product information

NO ALARM - NO CHANCE!

Carbon Monoxide or (CO), is a particularly insidious gas. It is a killer. The naked eye can't see it, it does not smell, it has no taste. The need for a reliable mains powered alarm that will operate even in the event of a mains failure is obvious.

The Ei professional range includes fully featured product usually specified by Local Authorities & Landlords and less sophisticated product where duty of care is not so much of an issue and where the mains supply is more likely to be continuous and /or regular battery maintenance is known to be reliably carried out.

The Ei261EN is the top of the range product. Current sensor technology used by all manufacturers of CO alarms has a limited life cycle; the sensors cannot be relied upon after a period of 5/6 years. The Ei261EN offers a **replacement sensor feature**, thereby increasing the life cycle of the product to ten years.

Ei261EN Mains Powered CO Alarm with Rechargeable Lithium Cells and Replaceable CO Sensor

- 10 year+ rechargeable lithium cell back-up designed to outlast the alarm
- Replacement sensor module, minimum five year life
- Easy to use test/hush button
- Automatic self diagnostics
- Distinctive alarm sound, easily distinguishable from a smoke alarm
- Wall or ceiling mounting
- Pre alarm warning
- Interconnect feature - Can be interconnected with Ei smoke and heat alarms. Contact us for details
- Comprehensive Indicator lights: Mains on / Fault / Alarm on
- Optional digital display - Ei261DEN
- Quick CO gas test feature

NOW WITH RC TECHNOLOGY OPTION



BS EN 50291: 2001



INTERCONNECT FEATURE

RECHARGEABLE LITHIUM CELLS

EASY TO REPLACE SENSOR MODULE