Manuals+ — User Manuals Simplified.

aico Ei660iRF Multi Sensor Fire Alarm

aico Ei660iRF Multi Sensor Fire Alarm Installation Guide

Contents

aico Ei660iRF Multi Sensor Fire Alarm

Product Information

Specifications:

- **Product:** Battery Powered Smoke / Heat / Multi-Sensor Fire Alarms
- **Series:** Ei600 series
- **Power Supply:** 3V Lithium Battery (non-replaceable)
- **Alarm Sound Level:** 85dB(A) at 3 meters
- **Operational Life:** 10 years
- **Interconnection:** Up to 12 units can be RF interconnected
- **Warranty:** Included

Product Usage Instructions

Installation:

1. Read the manual carefully before installation.
2. Locate the correct siting point in the room or area.
3. Fix the mounting plate to the ceiling, ensuring it is at least 300mm from walls and obstructions.
4. Ceiling mount the alarm ideally centrally in the room/area and twist it onto the base.
5. Twisting the unit onto the mounting plate will automatically connect the battery.
6. Test the alarm by pressing the test button at least monthly.

Maintenance:

- Regularly test your alarm using the test button.

- Clean your alarm periodically to ensure proper functioning.
- If needed, replace your alarm according to the manufacturer's recommendations.

AudioLINK+ Feature:
The Ei600 series Alarms are AudioLINK+ enabled, allowing users to download information from the Alarm using a smartphone App. For detailed instructions on using this feature, please refer to the relevant section on www.aico.co.uk.

Technical Support:
If you encounter any issues with your Alarm, refer to the troubleshooting section in the manual or contact customer support for assistance.

FAQ:

- **Q: How often should I test my alarm?**

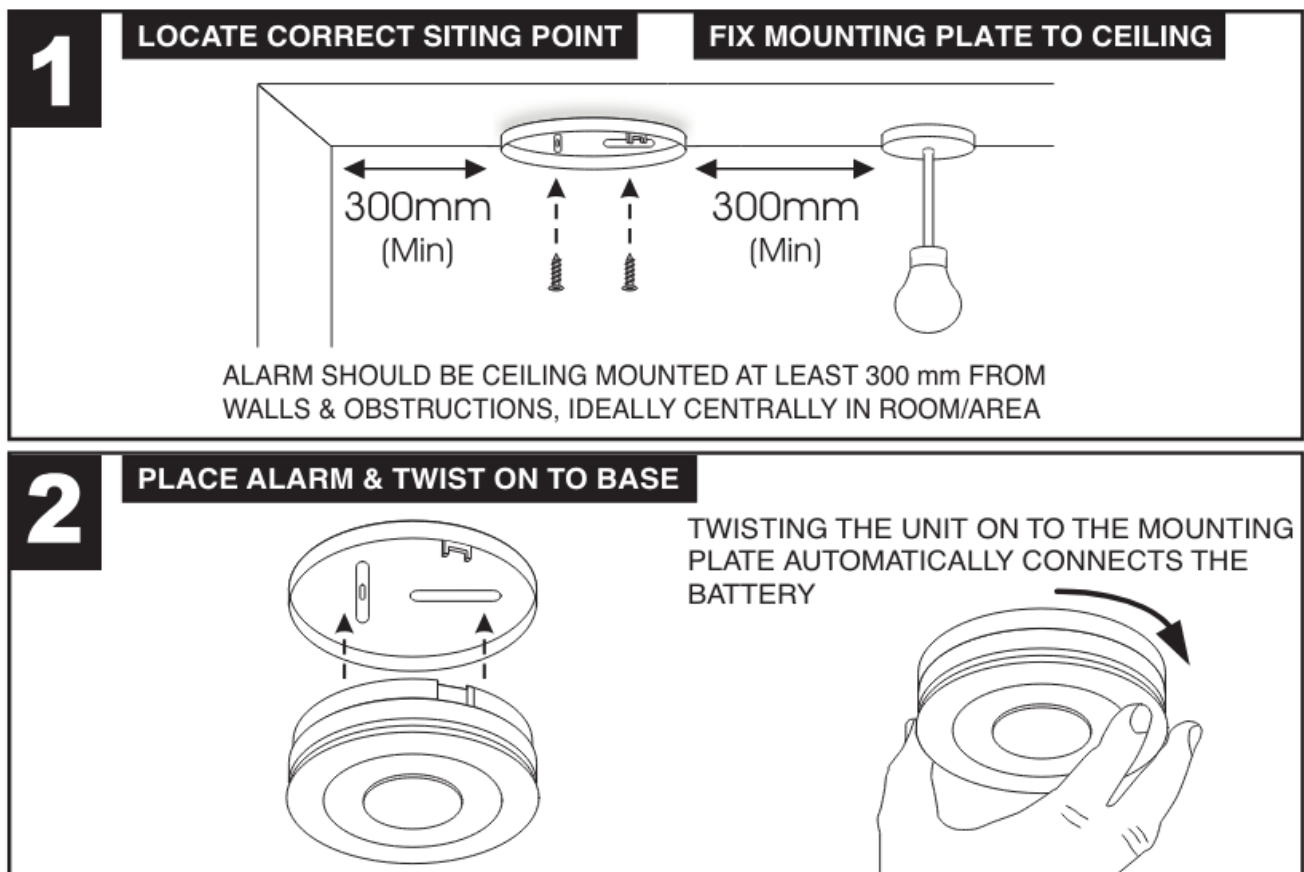 A: It is recommended to test your alarm at least monthly to ensure it is functioning correctly.
- **Q: Can I replace the battery in the alarm?**

  A: The alarms come with a non-replaceable 3V Lithium Battery, which should last for the operational life of the

  alarm. If you encounter any issues with the battery, contact customer support for assistance.

Read and retain carefully for as long as the product is being used. It contains vital information on the operation and installation of your Alarm. The manual should be regarded as part of the product.
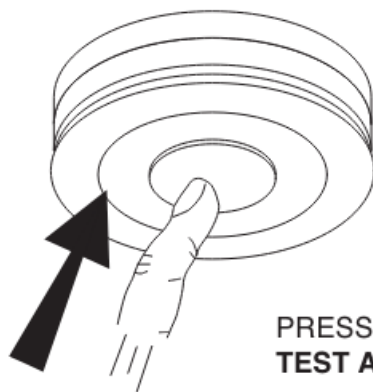If you are just installing the unit, the manual MUST be given to the householder. The manual is to be given to any subsequent user.

Quick Start Guide

1 LOCATE CORRECT SITING POINT — **FIX MOUNTING PLATE TO CEILING**

300mm (Min) — 300mm (Min)

ALARM SHOULD BE CEILING MOUNTED AT LEAST 300 mm FROM WALLS & OBSTRUCTIONS, IDEALLY CENTRALLY IN ROOM/AREA

2 PLACE ALARM & TWIST ON TO BASE

TWISTING THE UNIT ON TO THE MOUNTING PLATE AUTOMATICALLY CONNECTS THE BATTERY

3 TEST ALARM

PRESS THE TEST BUTTON
TEST ALARM AT LEAST MONTHLY

Introduction

The Ei600 series can be easily installed throughout the property on escape routes, on each storey, in corridors and in closed rooms to give warning of fire without the need of any electrical wiring. All Alarms in this series are powered by a built-in 10-year Lithium battery which is automatically connected when the Alarm is fitted to its mounting plate.

The Ei660i Multi-Sensor Fire Alarm is designed with a heat enhanced optical smoke sensor and automatic dust compensation, delivering a faster response to a wider range of fires. It detects both smoke and heat from a fire and is ideal for hallway, landing, living room and bedroom areas.

The Ei650i Smoke Alarm has a proven optical sensor and automatic dust compensation delivering a fast response to smouldering fires. It is ideal for hallway, landing and living room areas. The Ei630i Heat Alarm, fitted with a Class A1 Heat detection sensor, can only be used as a fire safety device if interconnected to one or more smoke / Multi-Sensor Fire Alarm(s). It is ideal for kitchens, garages, boiler houses and other areas where there are normally high level of fumes, smoke or dust i.e. places where Smoke / Multi-Sensor Fire Alarms cannot be installed without the risk of excessive nuisance alarms. Up to 12 Alarms can be wirelessly interconnected by adding an Ei600MRF RadioLINK+ module.
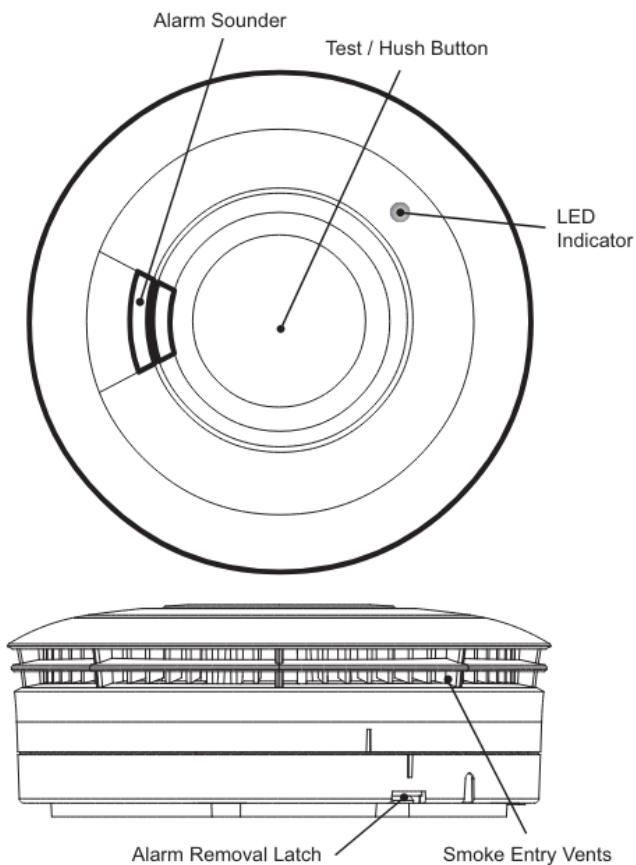AudioLINK+
The Ei600 series Alarms are AudioLINK+ enabled. This feature allows the user to download information from the Alarm through the use of a smart phone App. For more information on using this feature, please refer to the relevant section on www.aico.co.uk.

Model Chart

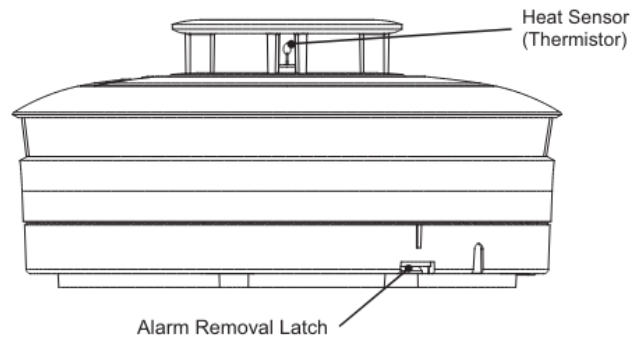| Alarm Type	Model	RF Interconnect	RF Upgradable	Optional RF Module Model No.
Smoke Alarm	Ei650i			
	Ei650iRF	✔		
Multi-Sensor Alarm	Ei660i		✔	Ei600MRF
	Ei660iRF	✔		
Heat Alarm	Ei630i		✔	Ei600MRF
	Ei630iRF	✔		

Overview

Ei650i Smoke Alarm

Alarm Sounder

Test / Hush Button

LED Indicator

Alarm Removal Latch

Smoke Entry Vents

Ei630i Heat Alarm

Heat Sensor (Thermistor)

Alarm Removal Latch

Ei660i Multi-Sensor Alarm

Heat Sensor (Thermistor)

Alarm Removal Latch

Smoke Entry Vents
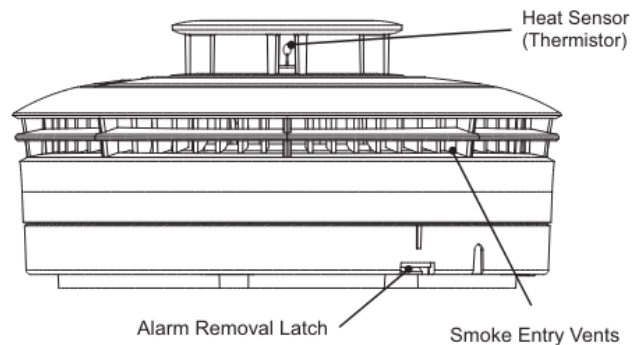
Technical Specifications

- **Optical Sensor** Optical (Ei650i and Ei660i)
- **Heat Sensor** Thermistor Class A1 Detection (Ei630i and Ei660i)
- **Power Supply** 3V Lithium Battery (non replaceable)
- **Alarm Sounder** Piezoelectric Horn
- **Alarm Sound Level** 85dB(A) at 3 meters (except in Test mode)
- **Test Button**
    - Checks sensors, electronics, interconnection, battery and sounder.
    - If unit is in alarm when pressed, it silences the alarm for 10 min.
    - Pressing the Test button will also silence fault chirps for 12 hours.
- **Visual indicators**
    - **Red LED –** Power up, Alarm, Hush mode and Memory
    - **Yellow LED –** Power up, Fault, End of Life
- **Operational Life** 10 years
- **Interconnection** Up to 12 units can be RF interconnected (an Ei600MRF RadioLINK+ module is required for each unit)
- **Memory Feature** Indicates that the Alarm has previously detected fire
- **Self Test** Sensors, piezo, batteries and electronics are automatically tested periodically
- **AudioLINK+** Enabled
- **Fixings** Supplied with mounting plate, screws and wall plugs
- **Operating Temperature** Normal: -10°C to +40°C (Storage: -10°C to +40°C)*
- **Humidity Range** 15% to 95% RH (non-condensing)

- **Plastic Material** UL94HB

- **Warranty** 5 year (limited)

- **Approvals** KM 522831, KM 83678, EN 14604:2005+AC 2008, BS 5446-2:2003

* Temperature and Humidity conditions are for normal operation and storage. Units will function outside these ranges as required by the specific product Standards. Extended exposure to conditions outside these ranges can reduce product life. For advice on prolonged operation outside these ranges consult the manufacturer.

Installation

Important Safety Instructions
The Alarm is designed to be permanently mounted using the fixings supplied. The mounting plate can be screwed directly to the ceiling or wall.
The battery for this Alarm is in a sealed compartment. Do not attempt to open the Alarm to get access to the battery as it is not replaceable.

WARNINGS:

- Do not install Alarms in new or renovated buildings until all work is completed

- Do not test with flame. This can set fire to the Alarm and damage the house.

- Do not paint or cover in any way your Alarm as this will affect its sensitivity

- Do not attempt to remove, recharge or burn the battery, as it may explode

- Do not expose the battery to excessive heat such as sunshine, fire, etc…

- Do not interfere or tamper with the Alarm as it may result in malfunction

- Do not dispose of your Alarm in a fire

Where to locate the Alarm
The main reason for fitting Smoke / Heat / Multi-Sensor Fire Alarms in dwellings is to ensure that when there is a fire, sufficient early warning is given so that everybody can escape safely. This means that the fire Alarms should ideally be located near all potential sources of fires and that the alarm should be heard throughout the house – particularly in the bedrooms.
It is also important that nuisance/false alarms are minimised to ensure the Alarms are not disabled or ignored.

- **Smoke / Multi-Sensor Fire Alarms**

  Sufficient smoke must enter your Smoke / Multi-Sensor Fire Alarm before it will respond. Your Alarm needs to be within 7.5 metres of the fire to respond quickly. Alarms also need to be in positions where they can be heard throughout the property, so they can wake you and your family in time for everyone to escape. A single Smoke / Multi-Sensor Fire Alarm will give some protection if it is properly installed, but most homes will require two or more (preferably interconnected) to ensure that a reliable early warning is given. For recommended protection you should put individual Smoke / Multi-Sensor Fire Alarms in all rooms where fire is most likely to break out (apart from the Kitchen and bathroom).

  Your first Smoke / Multi-Sensor Fire Alarm should be located between the sleeping area and the most likely sources of fire (living room for example). Place it as near to the living area as possible but make sure it can be heard loudly enough in the bedroom to wake someone. It should not be more than 7.5 metres from the door to any room where a fire may start and block your escape from the house.

  If your home has more than one floor, at least one Smoke / Multi-Sensor Fire Alarm should be fitted on each level, preferably interconnected. Figure 1 illustrates where Alarms should be located in a typical two storey

house.

Consideration should be given to installing Smoke / Multi-Sensor Fire Alarms in any bedrooms where fires might occur, for instance, where there is an electrical appliance such as an electric blanket or heater, or where the occupant is a smoker. In addition, consideration should also be given to installing Alarms in any rooms where the occupant is unable to respond very well to a fire starting in that room such as an elderly or sick person or a very young child.

Once you have installed your Alarm, check that the sound of the alarm can be heard in each bedroom with the door closed, above the sound of any TV / audio systems. The TV / audio systems should be set to a reasonably loud conversation level. If you cannot hear the alarm over the sound of the TV / audio systems, the chances are it would not wake you. Interconnecting the alarms wirelessly using an RF module will help to ensure that the alarm will be heard throughout the property.

- **Heat Alarms**

  The Heat Alarm gives a fire warning when the temperature at the Alarm reaches 58°C. It is ideal for kitchens, garages, boiler houses and other areas where there are normally high levels of fumes, smoke or dust i.e. places where Smoke / Multi-Sensor Fire Alarms cannot be installed without the risk of excessive nuisance alarms. A Heat Alarm should only be used in rooms adjoining escape routes, in conjunction with Smoke / Multi-Sensor Fire Alarms on the escape routes.
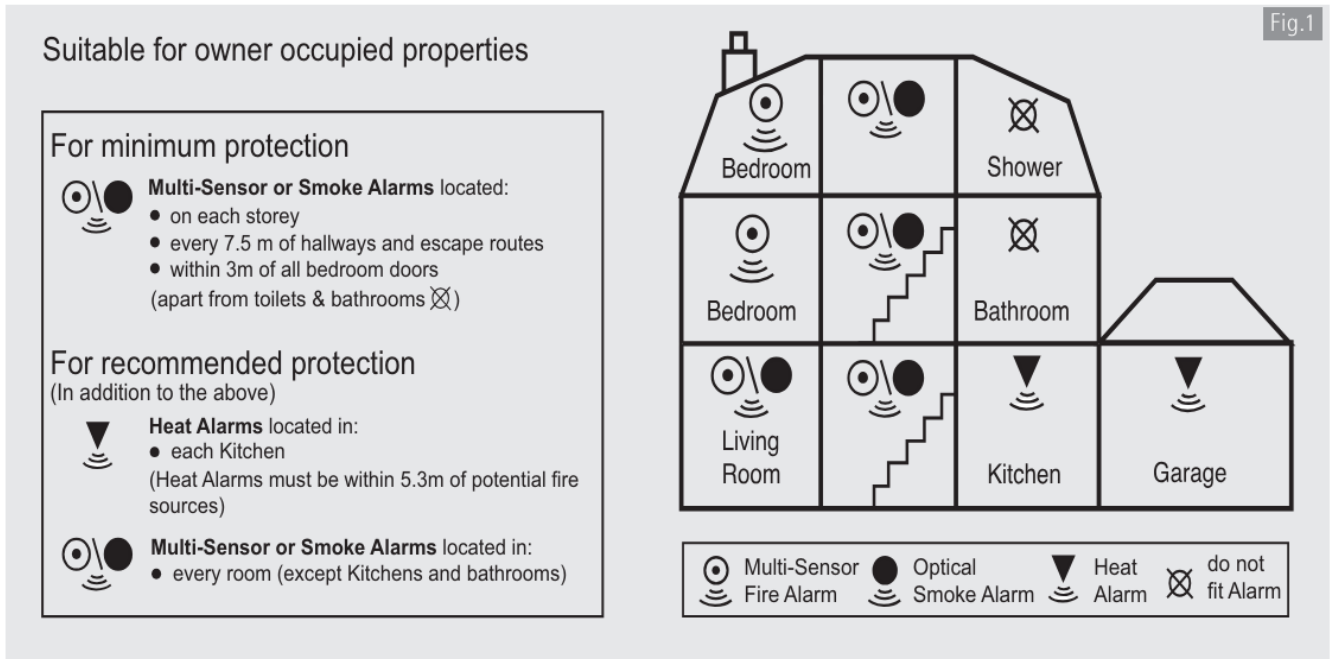
  All Heat Alarms must be interconnected to the Smoke / Multi-Sensor Fire Alarms to ensure that the early warning will be heard. A properly designed early warning fire system ensures the alarm is given before the escape routes become blocked with smoke. Therefore, there must be Smoke / Multi-Sensor Fire Alarms along the escape routes as Heat Alarms would not give sufficient warning.

Which Alarm in what room?

Location	Ei660i Multi-Sensor Alarm	Ei650i Optical Smoke Alarm	Ei630i Heat Alarm (i)
Hall, Corridors, Escape routes	✔	✔	✗
Kitchens / Garages	✗	✗	✔ (iii)
Living Rooms	✔	✔	✔ (ii)
Bedrooms	✔	✔	✗
Shower / Bathrooms	✗	✗	✗

1. A Heat Alarm should only be used in a room adjoining an escape route, in conjunction with Smoke or Multi-Sensor Fire Alarms on the escape routes. All the Alarms should be interconnected to ensure the early warning will be heard.

2. Some Fire authorities (concerned with the slow response of Heat Alarms) advise that Smoke or Multi-Sensor Fire Alarms should be fitted in living rooms. This is acceptable according to BS 5839-6:2019 provided there are clearly not going to be problems with nuisance alarms. Fit Heat Alarms only if nuisance alarms are very likely and it is acceptable that a warning will only be given by the Heat Alarm when there is a very significant flaming fire in the room. If the door(s) and windows are not closed to contain the fire and heat, it is extremely unlikely that the Heat Alarm would respond before a Smoke or Multi-Sensor Fire Fire Alarm sited outside in the corridor.

3. In enclosed kitchens with doors closed.

Fig.1

Suitable for owner occupied properties

For minimum protection

Multi-Sensor or Smoke Alarms located:
* on each storey
* every 7.5 m of hallways and escape routes
* within 3m of all bedroom doors
(apart from toilets & bathrooms ⊗)

For recommended protection
(In addition to the above)

Heat Alarms located in:
* each Kitchen
(Heat Alarms must be within 5.3m of potential fire sources)

Multi-Sensor or Smoke Alarms located in:
* every room (except Kitchens and bathrooms)

| ⊙ Multi-Sensor Fire Alarm | ● Optical Smoke Alarm | ▼ Heat Alarm | ⊗ do not fit Alarm |

Bedroom | Shower | Bedroom | Bathroom | Living Room | Kitchen | Garage

Where in the room?

* **Ceiling Mounting**

  Hot smoke rises and spreads out, so a central ceiling position is the preferred location. The air is "dead" and does not move in corners, therefore Alarms must be mounted away from corners. Fit the Alarm:

DEAD AIR SPACES — IDEALLY IN CENTRE OF CEILING — 300mm (min) — NEVER WITHIN 300mm OF ANY WALL
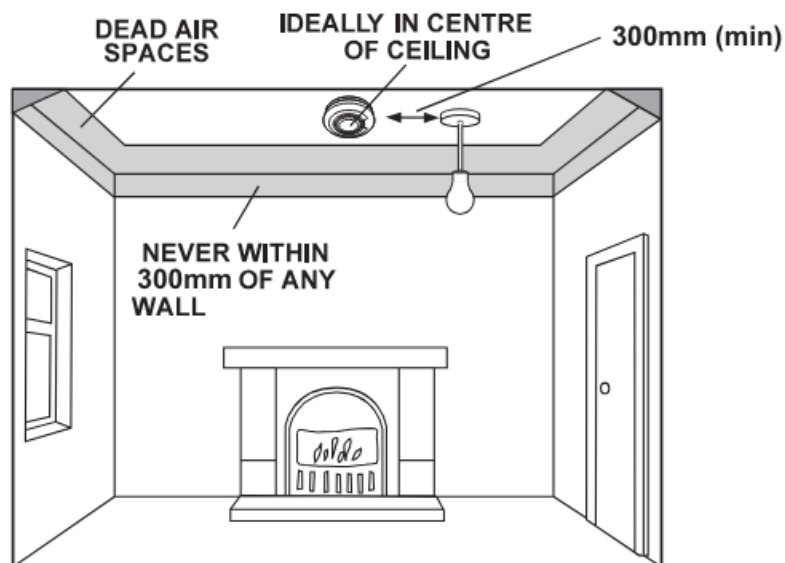
Fig.2

  ○ At least 300mm away from walls (see Figure 2)
  ○ At least 300mm from any light fitting or decorative object which might obstruct smoke / heat entering the Alarm.

* **Sloping Ceiling**

  With a sloping or peaked ceiling, install a Muti-Sensor or Smoke Alarm within 600mm of the peak measured vertically and a Heat Alarm within 150mm.

Fig.3
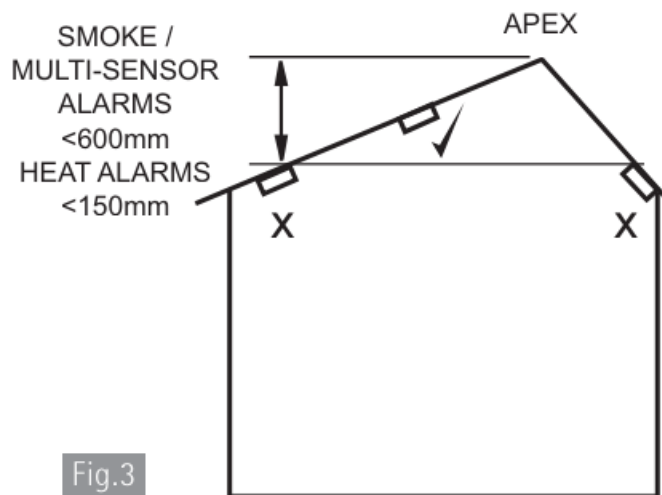
If the height of the peak is less than 600mm in the case of Muti-Sensor or Smoke Alarms or 150mm in the case of Heat Alarms, the ceiling is regarded as being flat (see Figure 3).

- **Wall Mounting (Ei650i only)**

  If ceiling mounting is impractical, Smoke Alarms may be mounted on a wall, provided that:

Fig.4
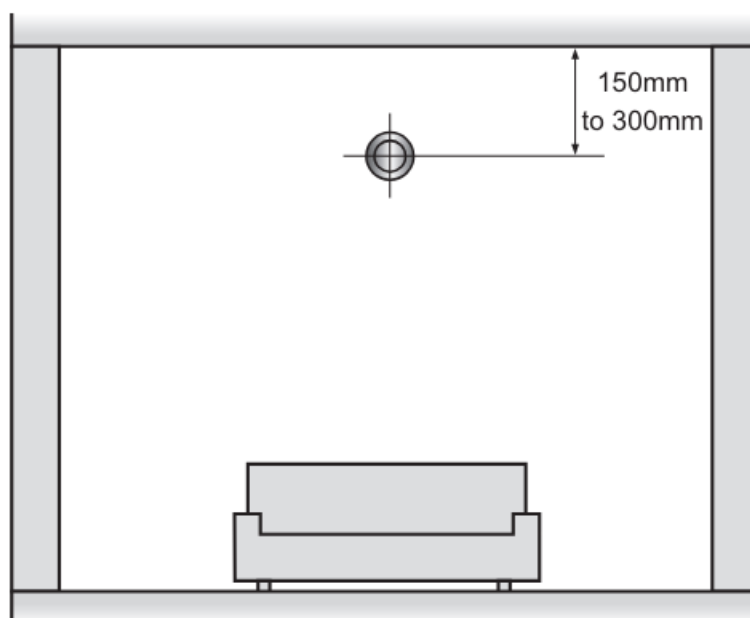
- The room does not exceed 10m in both length and breadth.
- The room does not exceed 50m2.
- The top of the detection element is between 150mm and 300mm below the ceiling (see Figure 4).
- The bottom of the detection element is above the level of any door opening.

  Wall mounting should only be considered where close beams or similar obstructions may preclude ceiling mounting. It is considered to be the responsibility of the installer / client to determine if the presence of asbestos in the ceiling material would make ceiling mounting "impractical".

Locations to avoid

DON'T place Smoke, Heat or Multi-Sensor Fire Alarms in any of the following areas:

- Bathrooms, shower rooms or other rooms where the Alarm may be triggered by steam, condensation.
- Places where the normal temperature can exceed 40°C or be below -10°C (e.g. furnace rooms, directly above ovens or kettles etc.) as the heat / steam could cause nuisance alarms.

- Near a decorative object, door, light fitting, window moulding etc., that may prevent heat or smoke from entering the Alarm.
- Surfaces that are normally warmer or colder than the rest of the room (e.g. attic hatches). Temperature differences might stop heat or smoke from reaching the Alarm.
- Next to or directly above heaters or air conditioning vents, windows, wall vents etc. where air draughts can change the direction of airflow and cause rapid temperature fluctuations.
- In very high or awkward areas (e.g. over stairwells) where it may be difficult to reach the Alarm (for testing, hushing etc.).
- In or near very dusty or dirty areas as dust build-up on the optical smoke sensor can impair performance. It can block the insect screen mesh and prevent smoke from entering the sensor. Dust build up can also increase the response time of the heat sensor.
- In insect infested areas. Small insects getting into the optical smoke sensor can cause intermittent false alarms. Insects and contamination on the heat sensor can increase its response time.
- In a damp or humid area.

Do not locate Heat Alarms directly above a sink or cooker – Keep at least 1 m horizontal distance between these items and the Alarm.

Mounting
WARNING: to prevent injury, this apparatus must be securely attached to the ceiling or wall in accordance with the installation instructions.

1. Select a location complying with the advice in Section 2.
2. Remove the mounting plate from the Alarm by twisting it in an anti-clockwise direction (see Figure 5).

Fig.5

ROTATE UNIT ANIT-CLOCKWISE
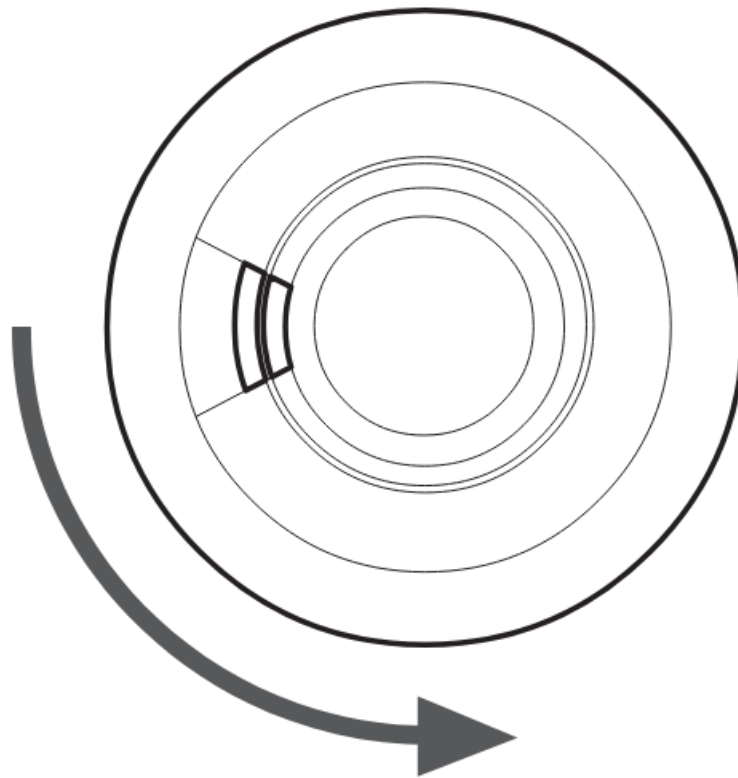
IF THE UNIT HAS BEEN TAMPERPROOFED,
IT WILL NOT TWIST OFF - SEE FIGURE 8c

3. Place the mounting plate on the ceiling exactly where you want to mount the Alarm. With a pencil, mark the location of the two screw holes.

4. Taking care to avoid any electrical wiring in the ceiling, drill holes using a 5.0mm drill bit through the centre of the marked locations. Push the plastic screw anchors provided into the drilled holes. Screw the mounting plate to the ceiling.

5. If using an RF interconnection, ensure all Alarms are facing the same direction. This means picking a part of the building, say the front of the building and then installing all mounting plates in the same orientation with respect to this (see Figure 7).

6. Carefully line up the Alarm on the mounting plate, press down gently and twist on.

7. Press and hold the Test button for 10 seconds (see Figure 6) on each Alarm to ensure that it sounds. Check that any interconnected Alarms also sound within this period.

Fig.6

Front Wall   **Front Wall**

Mounting Plate   Mounting Plate

Orientate all mounting plates in the same direction

Large hole nearest front wall

Mounting Plate   Mounting Plate
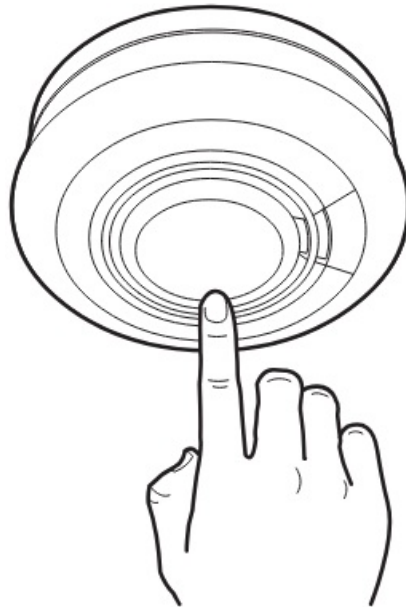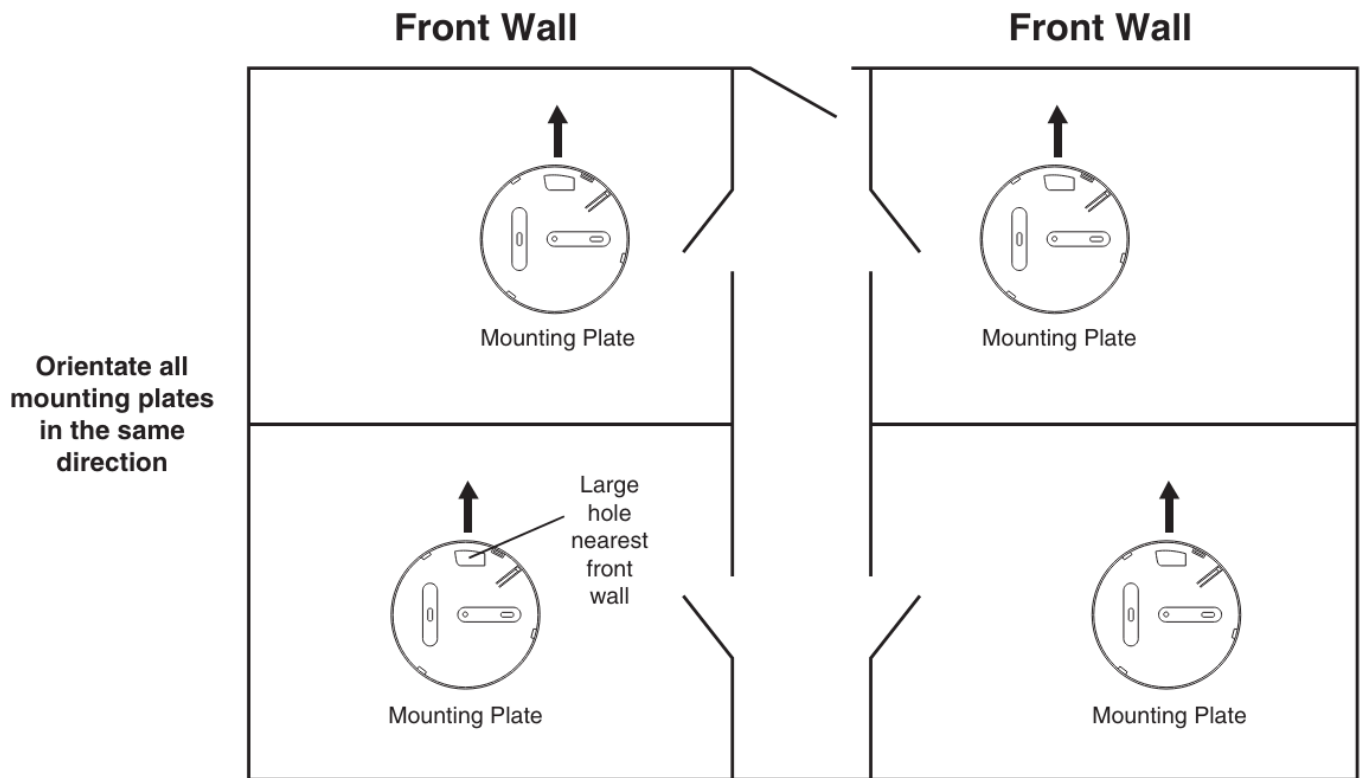
Fig.7

Tamperproofing the Alarms

The Alarm can be made tamperproof to prevent unauthorised removal. Break off the small pillar on the back of the Alarm as shown in figure 8a. To remove the Alarm from the ceiling it is now necessary to use a small screwdriver. To release the Alarm, push the atch towards the ceiling and then twist off (see figure 8b). If necessary, it is possible to further secure the Alarm by using a No. 2 or No. 4 (2 to 3 mm diameter – not supplied) self tapping screw 6 to 8mm long (see figure 8d), to firmly lock the Alarm and its mounting plate together (see figure 8c).

SELF TAPPING
SCREW

6 to 8 mm

2 to 3 mm

Fig.8d

Fig.8a

BREAK OFF
SMALL PILLAR

Fig.8b

PUSH UP CATCH & TWIST
ALARM ANTI-CLOCKWISE TO REMOVE

Fig.8c

TAMPERPROOF SCREW
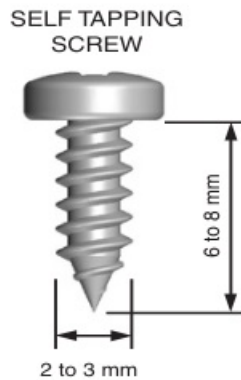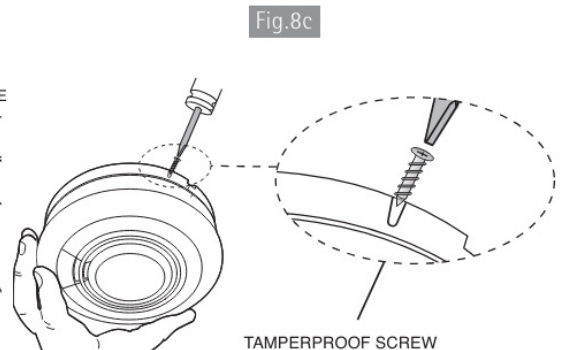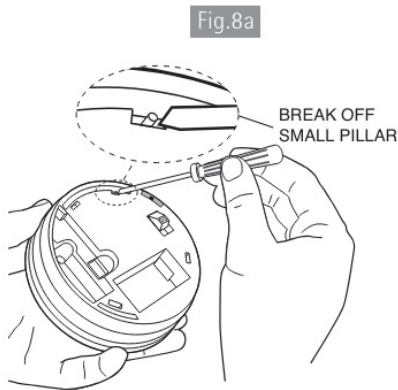
First, attach the Alarm to the mounting plate.
Line up the screw (not supplied) on the "U" shaped recessed area shown in figure 8c and screw firmly home. To remove the Alarm from the ceiling, remove the screw first, and then twist off anti-clockwise.

Interconnecting Alarms
With interconnected Alarms, when one device detects fire, all will sound. All Alarms will sound but only Alarms detecting the emergency event will be flashing their red LED alarm indicator.

- The Alarms can be RF interconnected to other Aico/Ei Electronics RF Alarms and devices by installing an Ei600MRF RadioLINK+ module. See the User manual for the Ei600MRF for further details on RF interconnection.
- Ensure the Alarms operate correctly – see TESTING YOUR ALARM section.
- Heat Alarms must always be interconnected to Smoke or Multi-Sensor Fire Alarms to ensure early warning.
- A maximum of 12 devices can be interconnected in an Aico/Ei Electronics Alarm system. If you wish to connect more than 12 Alarms, contact the Aico Technical Department on 01691 664100.
- Alarms should be interconnected only within the confines of a single family living unit. If they are connected between different units, there may be excessive nuisance alarms. Everybody may not be aware that they are being tested or that it is a nuisance alarm caused by cooking etc.
- In an RF system containing more than 3 or 4 Alarms, an Aico/Ei Electronics Control Switch (Ei450) should be incorporated and be readily accessible to all occupants so that the source of an alarm can be quickly identified. This is especially important when both Fire and CO Alarms are used in the same system as the occupant will need to open all windows and doors if it is a CO incident but do the opposite to slow down a fire.

Maintenance

Testing your Alarm
Frequent testing of all your Alarms is a requirement to ensure they are functioning correctly. Guidelines and best practices for testing are as follows:

1. After the system is installed.
2. Once monthly thereafter.
3. After prolonged absence from the dwelling (e.g. after holiday period).

How to perform the Test:

1. Press and hold the Test button for 10 seconds on each Alarm to ensure it sounds and the red LED flashes. (The red LED will flash at a rate of 1 flash every 0.5 seconds. If the red LED flashes at a different rate or the yellow LED flashes, a fault may exist. Please consult the indicator summary table).
2. If the Alarms are interconnected using RF modules, hold down the Test button until the blue LED on the cover of the Alarm illuminates. Check that all other Alarms sound.
3. Release the Test button. The Alarm and all interconnected Alarms should stop sounding and the red LED will stop flashing on the Alarm the Test button was held down.
4. Repeat this procedure for all other Alarms in the system.

DO NOT TEST WITH FLAME
This can set fire to the Alarm and damage the dwelling. We do not recommend testing the Alarm with heat and/or smoke as the results can be misleading unless effective apparatus is used.

Cleaning your Alarm

- Clean your Alarm regularly. In dusty areas it may be necessary to clean the Alarm more frequently.
- Do not allow cobwebs, dust or grease to accumulate on or near the Alarm.
- Use the narrow nozzle attachment of your vacuum cleaner to remove dust, insects and cobwebs from the sides and cover slots where the airflow enters. Clean the outside cover by occasionally wiping with a clean damp cloth then dry thoroughly with a lint free cloth. Do not use any cleaning agents, bleaches, detergents or polishes, including those in aerosol cans.
- DO NOT PAINT YOUR ALARM
- Other than the cleaning described above, no other customer servicing of this product is required. Servicing or repairs, when needed, must be performed by the manufacturer.
- All Alarms are prone to dust and insect ingress, which can cause false alarms or failure to alarm. In certain circumstances, even with regular cleaning, contamination can build up in the smoke sensing chamber causing the Alarm to sound or fail.
- Contamination is beyond our control, it is totally unpredictable and is considered normal wear and tear. For this reason, contamination is not covered by the guarantee.

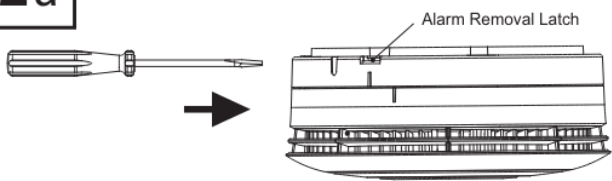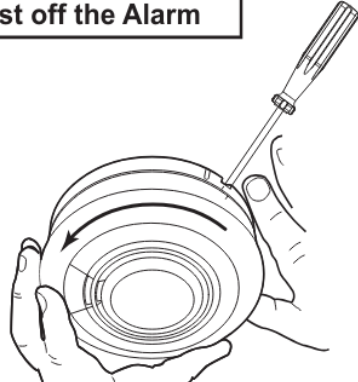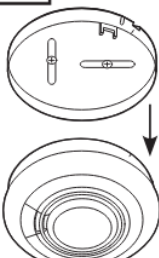**Replacing your Alarm**
The entire Alarm must be replaced if:
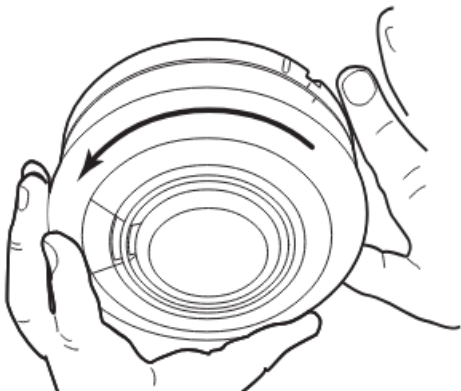
- • The Alarm is giving a low battery indication (see the Indicator summary Tables & Troubleshooting section)
  • The Alarm fails to sound when the Test button is pressed.
  • The Alarm is giving and End-of-Life indication (see the Indicator summary Tables & Troubleshooting section)

• The Alarm is installed for over 10 years (check the Replace By date marked on the side of the Alarm).

DO NOT PUT THE ALARM INTO A FIRE
The Alarm should be disposed in a safe and environmentally sound manner at your local recycle centre. Contact your local authority for further advice.

How to remove the Alarm

1 Twist off the Alarm

Twist the head of the Alarm anti-clockwise while holding the mounting plate with the other hand

2a If tamperproofed

Alarm Removal Latch

If there is no movement and you cannot get the head to turn at all, the Alarm may have been tamperproofed. In this case locate the removal latch and insert a flat-bladed screwdriver horizontally about 10 mm into the centre of the removal latch

2b Twist off the Alarm

With the screwdriver still inserted, twist the head of the Alarm anti-clockwise

3 Remove Alarm

The Alarm will then disengage from the mounting plate. Ensure that you hold the Alarm head at all times so that it does not fall on the ground

Indicator Summay Tables & Troubleshooting

The Alarm can communicate its status and history through various LED flashes and chirps/beeps. A comprehensive report of all such events and more is available through the AudioLINK+ download via the AudioLINK+ App.

- **Low Battery**

  If the Alarm gives a short chirp about every 48 seconds with a yellow LED flash at the same time, it indicates that the Lithium Battery is partially depleted and the Alarm needs to be replaced.

  WARNING: Do not attempt to open the Alarm. The Lithium battery is sealed and is not replaceable. If the battery is depleted, the Alarm must be replaced.

- **Sensor or Piezo Fault**

  The Alarm regularly checks the piezo, the optical smoke sensor and / or thermistor heat sensor for correct operation. If the Alarm has found a fault, it will give 2 short chirps with 2 yellow LED flashes every 48 seconds. In this case, the Alarm must be returned for repair or replacement.

- **End of Life**

  Once the Alarm passes its 10th year of installation, it will give 3 short chirps with 3 yellow LED flashes every 48 seconds to indicate it has reached its end of useful life.

  The Alarm must be replaced.

- **Maximum Dust Compensation (Multi-Sensor and Smoke Alarms only)**

  The Alarm monitors the dust contamination build-up in the optical smoke chamber and then compensates for it, reducing the possibility of false alarms. If however, the Alarm gives 4 short chirps with 4 yellow LED flashes when the button is pressed, it indicates that the Alarm has reached the maximum dust compensation. When this occurs, the Alarm will continue to operate as normal, but there is an increased risk of false alarms caused by dust contamination. If contamination has occurred quickly (e.g. due to dust from carpets being replaced) and the Alarms are sounding, the dust compensation may take some hours to operate. In this situation, remove the Alarm from the mounting plate, leave it disconnected for 5 minutes, then reinstall the unit (the air must be clean i.e., dust and smoke free). The dust compensation will now operate quickly, within 60 seconds.

- **Temporarily Silencing Fault Chirps**

  If the button is pressed on an Alarm that is giving fault chirps and yellow LED flashes, the Alarm will be silenced (Fault Hush Mode) for a period of 12 hours. However, the Alarm will sound / function as normal within that period should it detect fire (except if the fault detected is a sensor or piezo fault). The yellow LED fault indicator will continue to flash as before to indicate that the fault is still present. The fault chirps will return 12 hours later. A low battery fault and an end of life fault can be hushed as often as required.

- A sensor or piezo fault condition can only be hushed once.

Indicator Summary Tables

Indicator summary table				
Normal mode				
Mode	Action	Yellow LED (fault)	Red LED (alarm)	Sound
Power up	Twist on mounting plate	flashing x 1	flashing x 1	chirp x 1 *
Standby	——	——	——	——
Testing (monthly)	Press and hold button	——	flashing x 1 every 0.5 sec	Ramp up to alarm
In alarm mode				
Detecting fire	——	——	flashing x 1 every 0.5 sec	Alarm
Activated via interconnect	——	——	——	Alarm
Pressing Button on Alarm detecting fire	Press and release button	——	flashing x 1 every 0.5 sec	muted x 10mins

* Ei650i and Ei660i models only

= LED on solid   = LED flashing   = Chirp   = Alarm   = Ramp up to alarm

Fault modes and Memory indicator				
What you hear / see			What it means	What to do
Yellow LED [1] (fault)	Red LED (alarm)	Chirps		
((○)) x1 every 48 sec	——	📢 x1	Low battery	Replace Alarm
((○)) x2 every 48 sec	——	📢 x2	Sensor / Piezo[2] fault	Replace Alarm
((○)) x3 every 48 sec	——	📢 x3	End of Life	Replace Alarm
((○)) x4 every 8 sec	——	📢 x4	Max Dust Compensation has been reached [3]	see Maximum Dust Compensation explanation above
Flashes as per fault type	——	—— [4]	Fault chirps have been silenced. Rate of the yellow LED flashing indicates fault type	If required chirping can be silenced again by pressing Silence button
——	((○)) x1 every 8 sec when pressing button	——	There has been an alarm in the last 24 hours	Check memory mode table

Notes:

1. If you are unsure of the amount of flashes of the Yellow LED you can at any time while a fault condition exists, press the button. The relevant number of flashes will then be 8s apart.
2. In the case of a piezo fault, the chirps may be not occur.
3. The fault indicators will only manifest when the button is pressed
4. Fault chirps can be silenced for 12 h. by pressing the button.

Memory mode			
Status	Action	Red LED (alarm)	Sound
0–24h	——	((○)) x2 every 48 sec	——
>24h +	Press and hold button	((○)) x2 every 8 sec	📢

If there has been an alarm condition in the last 24 hours the red LED will flash twice every 48 seconds. An alarm condition outside of the previous 24 hours can be checked by pressing and holding the test button, the red LED

will flash twice every 8 seconds.

Note: Pressing the button at any stage will erase the memory. If pressed past 24 hours after the alarm event, the Alarm will sound and the red LED will flash twice every 8 seconds. Once the button is released, the Alarm will stop flashing and sounding.

Troubleshooting

- **Your Alarm does not sound when you press the button**
    - Check the Alarm is fitted correctly and fully twisted on the mounting plate as this connects the battery.
    - Hold button down firmly for at least 10 seconds.
    - If the Alarm does not sound, then your Alarm must be returned for repair or replacement – See section 3.1 – Getting your Alarm serviced.
- **Your Alarm sounds for no apparent reason**

  If , when the Alarm sounds, there is no sign of smoke, heat or noise to indicate that there is a fire, you should get your family into a safe place, before you start investigating.
    - Check the house carefully in case there is a small fire smouldering somewhere.
    - Check for smoke, fumes, steam, very hot air etc.
    - Locate the Alarm that sounds and has a flashing red LED.
    - If you have thoroughly investigated and are sure that it is just a nuisance alarm, simply press the Test button briefly to silence the Alarm for 10 minutes. This will also silence any interconnected Alarms for the same period. When the Alarm is in "Hush" mode the red LED will continue to flash while it detects the presence of smoke or heat.
    - The Alarm will reset to normal functionality at the end of the 10 minutes. If additional silenced time is required, simply push the Test button again.

      If you experience frequent nuisance /false alarms, it may be necessary to re-locate the Alarm away from the source of the fumes or if it continues to sound without smoke or heat being present and cleaning the Alarm does not solve the problem, it needs to be replaced.
- **Interconnected Alarms do not all sound**
    - Hold the Test button for at least 10 seconds to ensure that the signal is transmitted to all the interconnected Alarms.
    - Check that all Alarms in the RF system are powered and are house-coded correctly. (see the Ei600MRF RadioLINK+ module manual)
- **Pressing the button during an alarm does not silence the Alarm**

  Always make sure that you are pressing the button on the Alarm that sounds with the red LED flashing.
- **Your Alarm chirps / beeps / flashes**

  In standby mode, the Alarm does not sound, beep, chirp or flash. The Alarm automatically monitors the battery, sensor, electronics and piezo periodically to ensure that all are satisfactory. If a fault has been found, the Alarm alerts the occupier to this via short chirps and its yellow LED fault indicator flashes every 48 seconds. The Alarm will also indicate any faults when the Test button is pressed.

  See section 4.1 – Indicator Summary Tables

Fire Safety Advice

When using household protective devices, basic safety precautions should always be followed, including those listed below

- Please read all the instructions
- Rehearse emergency escape plans so everyone at home knows what to do in case the Alarm sounds.
- Use the Alarm Test Button to familiarise your family with the Alarm sound and to practice fire drills regularly with all family members. Draw up a floor plan that will show each member at least 2 escape routes from each room in the house. Children tend to hide when they don't know what to do. Teach children how to escape, open windows, and use roll up fire ladders and stools without adult help. Make sure they know what to do if the alarm goes off.
- Constant exposure to high or freezing temperatures, high humidity or a high level of nuisance alarms may reduce the life of the battery.
- Nuisance alarms can be quickly silenced by fanning vigorously with a newspaper or similar to remove the smoke or press the test / hush button.
- If the Alarm has been damaged in any way or does not function properly, do not attempt a repair. Return the Alarm – see Section 7 – "Service and Guarantee"
- This appliance is ONLY intended for premises having a residential type environment.
- This is not a portable product. It must be mounted following the instructions in this manual.
- Fire Alarms are not a substitute for insurance. The supplier or manufacturer is not your insurer.

What to do in case of alarm

1. Check room doors for heat or smoke. Do not open a hot door. Use an alternate escape route. Close all doors behind you as you leave.

2. If smoke is heavy, crawl out, staying close to floor. Take short breaths, if possible, through a wet cloth or hold your breath. More people die from smoke inhalation than from flames.

3. Get out as fast as you can. Do not stop for packing. Have a prearranged meeting place outside for all family members. Check everybody is there.

4. Call the Fire Brigade immediately on a mobile phone or from a neighbour's house. Make sure to call the Brigade for all fires no matter how small – fires can suddenly spread. Also call the Brigade even if the alarm is automatically transmitted to a remote manned centre – the link may have failed.

5. NEVER re-enter a burning house.

Limitations of Fire Alarms

Multi-Sensor / Smoke / Heat alarms can significantly help to reduce the risk of fire fatalities.
However, independent authorities have stated that these systems may be ineffective in some fire situations. There are a number of reasons for this:

- The Alarms will not work if the batteries are depleted or they are not connected. Test regularly and replace the entire Alarm when it fails to operate.
- The Alarms will not detect fire if sufficient heat / smoke does not reach the Alarms. Heat / smoke may be prevented from reaching the Alarm if the fire is too far away, for example, if the fire is on another floor, behind a closed door, in a chimney, in a wall cavity, or if the prevailing air drafts carry the heat / smoke away. Installing Alarms on both sides of closed doors and throughout the house or premises as recommended in this manual will very significantly improve the probability of early detection.
- The Alarms may not be heard. An Alarm may not wake a person who has taken drugs or alcohol.
- The Alarms may not detect every type of fire to give sufficient early warning.
- The Alarms don't last indefinitely. We recommend regular testing and replacement after, at most, 10 years, as a precaution.

Service and Guarantee

Getting your Alarm serviced
If, within the guarantee period, your Alarm fails to work after you have carefully read all the instructions and checked the unit has been installed correctly, then contact us.
If you are advised to return your Alarm, please ensure that the Alarm is placed in a padded box, not attached to the mounting plate (as the Alarm can give beeps or alarm if the Test button is pressed during shipping), with the proof of purchase and a note stating the nature of the fault.

Guarantee
Ei Electronics guarantees this Alarm for five years from the date of purchase against any defects that are due to faulty materials or workmanship. If this Alarm should become defective within the guarantee period, we shall at our discretion repair or replace the faulty unit. This guarantee only applies to normal conditions of use and service, and does not include damage resulting from accident, neglect, misuse, unauthorised dismantling, or contamination howsoever caused. This guarantee excludes incidental and consequential damage. This guarantee does not apply to any product that has been modified in any way by a third party or has been fitted with a third-party element.
WARNING: Do not interfere with the Alarm or attempt to tamper with it. This will invalidate the guarantee and may

cause the Alarm to malfunction.
This guarantee is in addition to your statutory rights as a consumer.

The crossed out wheelie bin symbol that is on your product indicates that this product should not be disposed of via the normal household waste stream. Proper disposal will prevent possible harm to the environment or to human health. When disposing of this product please separate it from other waste streams to ensure that it can be recycled in an environmentally sound manner. For more details on collection and proper disposal, please contact your local government office or the retailer where you purchased this product.

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EN 14604:2005 + AC:2008

Smoke Alarm Devices:
Ei650i, Ei650iRF, Ei660i, Ei660iRF

Fire Safety

Nominal activation conditions/ sensitivity, response delay (response time) and performance under fire condition	**Pass**	Vibration resistance	**Pass**
Operational reliability	**Pass**	Humidity resistance	**Pass**
Tolerance to voltage supply	**Pass**	Corrosion resistance	**Pass**
Response delay and temperature resistance	**Pass**	Electrical stability	**Pass**

$C\ E$	$\begin{matrix} UK \\ CA \end{matrix}$
Heat Alarm Devices: Ei630RF, Ei630i, Ei630iRF, Ei660i, Ei660iRF	Heat Alarm Devices: Ei630RF, Ei630i, Ei630iRF, Ei660i, Ei660iRF

The Declaration of Performance may be consulted at **www.eielectronics.com/compliance**

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www.aico.co.uk

Documents / Resources

[image]	**aico Ei660iRF Multi Sensor Fire Alarm** [pdf] Installation Guide Ei660iRF Multi Sensor Fire Alarm, Ei660iRF, Multi Sensor Fire Alarm, Sensor Fire Alarm, Fire Alarm, Alarm

References

- aico **Aico | The European Market Leader in Home Life Safety**
- **User Manual**