



For full User Instructions
for Republic of Ireland Customers
scan the QR code below



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Ei146e

Ei144e



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Ei144e

Ei146e

Introduction

This Alarm is intended to be used as a device that provides a loud warning when it detects smoke/heat to alert people of an immediate danger enabling them to evacuate their dwelling promptly.

It must be installed in accordance with the latest standards and is for indoor use only.

This device is mains powered with built-in battery back-up suitable for use in residential applications. It can be interconnected by hardwire or RF and **must be installed and interconnected by a qualified electrician.**

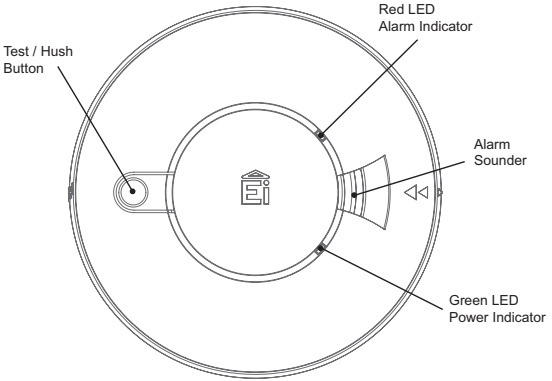
This Alarm can only be used according to the instructions as described in the user manual. All use other than that described in the user manual is seen as unintended use.

Please read the user manual in full before installing or using the Alarm.

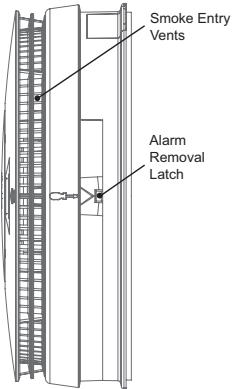
Product Overview

Models	Alarm Type
Ei146e	Optical Smoke Alarm
Ei144e	Heat Alarm

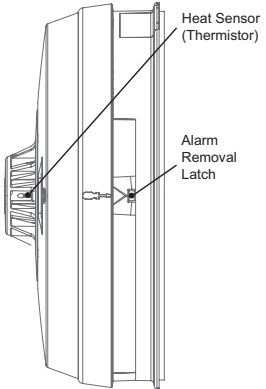
Top View



Ei146e Optical Alarm



Ei144e Heat Alarm



Technical Specification

Power Supply	230V AC, 50Hz
Power Consumption	0.25W (standby)
Max Current Draw	60mA
Battery Backup	9V Replaceable Alkaline battery
Alarm Sounder	Piezoelectric Horn
Alarm Sound Level	85dB(A) at 3 meters (min)
Test/Hush Button	Checks sensors, electronics, interconnection and sounder. If the unit is in alarm when pressed, it silences the alarm for 10min
Visual indicators	<i>Green LED</i> – Power supply <i>Red LED</i> – Memory, alarm (if coincides with horn sounding) or fault
Operational Life	10 years
Interconnection	Units can be interconnected via a hardwired or wireless system (using optional Ei168RC RF base)
Fixings	Supplied with Easi-fit anti-tamper mounting plate with integral terminal block and wiring cover, includes screws and wall plugs
Operating & Storage Temperature	-10°C to +40°C*
Humidity Range	15% to 95% RH (non-condensing)

* Temperature and Humidity conditions are for normal operation and storage. The Alarms 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 range consult the manufacturer.

Important Safety Instructions

WARNING: Mains operated Alarms must be installed and interconnected by a qualified electrician in accordance with the local Regulations for Electrical Installations. Failure to install this Alarm correctly may expose the user to shock or fire hazards and damage the product.

The Alarm is designed to be permanently mounted, using its own built-in terminal block to connect it to the mains. The mounting plate can be screwed directly to the ceiling. Alternatively, it can be screwed to a standard junction box (BS 4662 single gang accessory box). The Alarm must not be exposed to dripping or splashing. There are important markings on the underside of the Alarm.

ATTENTION:

Alternative Energy Sources - (Wind, Solar, UPS etc.)

This product is designed to be connected to a Pure or True Sine Wave 230V AC supply.

If connecting to a power source that utilises an inverter, e.g. PV solar panel, the Total Harmonic Distortion (THD) must be less than 5%. If in doubt please check with the manufacturer of the inverter.

This also applies to battery powered UPS (Uninterruptible Power Supply) inverters.

Light Dimmer Circuits – The Alarms **must not** be powered from a light dimmer circuit.

IMPORTANT PRECAUTION: Do not install Alarms in new or renovated buildings until all work is completed.

The Alarm must not be connected when the house wiring insulation is being checked with high voltages. i.e. Do not use a high voltage insulation tester on the Alarm.

ATTENTION: The Alarm must be continuously powered 24 hours a day so it is important that it is not on a circuit that can be turned off by a switch.

WARNING: Electrical installations must comply with local regulations.

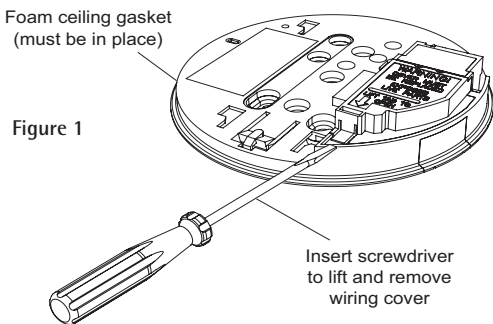
WARNING: An all-pole mains switch shall be incorporated in the electrical installation of the building.

WARNING: Always test the Alarm after battery replacement and only use recommended 9V Alkaline battery. Do not expose battery to excessive heat such as sunshine, fire, etc...

Mounting and Wiring

Disconnect the AC mains supply from the circuit that is going to be used.

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



Place the mounting plate exactly where you want to mount the Alarm. With a pencil mark the location of the two screw holes. Taking care to avoid any electrical wiring in the ceiling/wall, 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.

Lift off the wiring cover using a flat head screwdriver as shown in Figure 1.

The wiring must be connected to the terminal block on the mounting plate as follows:


Country	Live	Neutral	Interconnect	Earth
Ireland	Brown	Blue	White	Green/ Yellow
UK	Brown	Blue	Black	Green/ Yellow

WARNING: Wiring must be installed in compliance with local regulations.

WARNING: Mixing the Live and Neutral connections when interconnecting Alarms may damage all the Alarms - ensure that the same colours are used throughout the premises for Live, Neutral and Interconnect wires.

We strongly recommend that you check for the following **before connecting the Alarm:**

- check for Live and Neutral using a two probe tester.
- check for Live using a neon tester.
- check that the Interconnect wire is NOT connected to Live, Neutral or Earth. **Do not use an Earth wire for the Interconnect line.**

N.B. The Alarm does not need to be earthed. However the terminal marked  is provided for the convenience of the installer so that any copper Earth wire or cable coloured green and yellow, can be safely terminated.

4. If the mains wires are recessed, bring the wires through the rear hole in the mounting plate as shown in Figure 2.

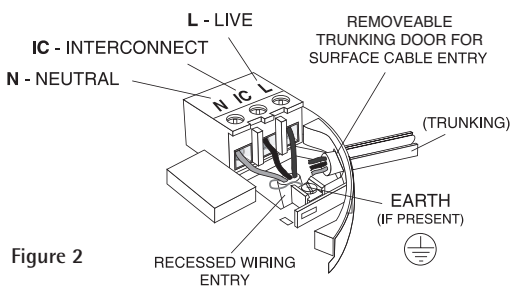
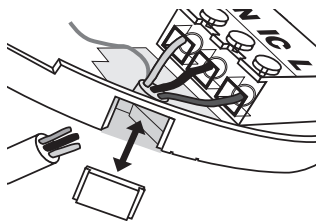


Figure 2

If the mains wires are being brought along the surface:

- (a) position the mounting plate so the cable trunking is as shown in Figure 2.
- (b) the mounting plate has a removable section, take it out to interface directly with 25mm trunking as shown in Figure 3. If interfacing to 16mm trunking carefully cut around the marked section, leaving the top intact and replace the section. (If you are not using surface wiring, the removable section must be left in place for electrical safety reasons).

Figure 3

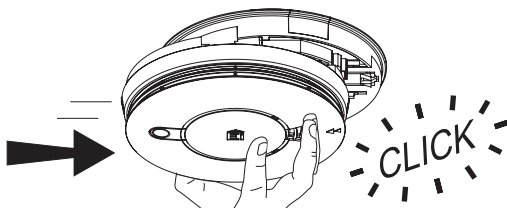


There are two other positions which are also suitable for the surface wiring to enter (and exit) the Alarm, one next to the removable section and another directly opposite.

5. Screw the mounting plate into place. Connect the wires to the terminal block. With recessed wiring, ensure the rear gasket seals around the edge of the hole in the ceiling or wall. This is to prevent air draughts affecting the smoke/heat entering the Alarm. If the hole is too large or the Alarm does not seal it, it should be sealed with silicone rubber or equivalent.
6. Replace the wiring cover.
7. Attach the battery to the battery snaps.
8. Carefully line up the Alarm on the mounting plate and slide on (see Figure 4).

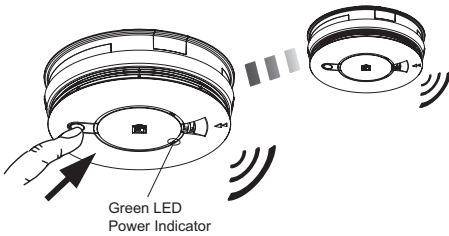
Figure 4

Slide on the Alarm



9. Press and hold the Test/hush button for 10 seconds. The horn will sound. On release of the button, the local Alarm will stop sounding immediately and the interconnected Alarms will stop sounding a few seconds later.
10. Connect the mains power to the Alarm circuit. The red LED will flash once and the green LED will light up. Ensure the green LED remains lit confirming that the Alarm is receiving mains power.

Figure 5 **Test Alarms**



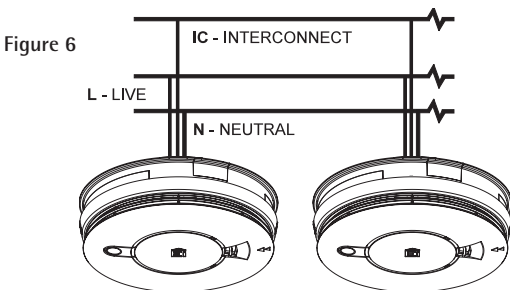
Interconnecting Alarms

With interconnected Alarms, when one Alarm detects fire all will sound. However, only Alarms detecting fire will have a flashing red LED.

Heat Alarms must **always** be interconnected to Smoke Alarms to ensure early warning.

WARNING: Do not hardwire interconnect mains powered Alarms with low voltage or battery powered Ei Electronics Alarms/devices or any other type of Alarm produced by another manufacturer. Doing so may damage the Alarms and could result in a shock or fire hazard.

To interconnect Alarms connect all the IC terminals together as shown in Figure 6.



The interconnect wire (minimum 0.75mm² cable) must be treated as if it was Live. It should be insulated and sheathed.

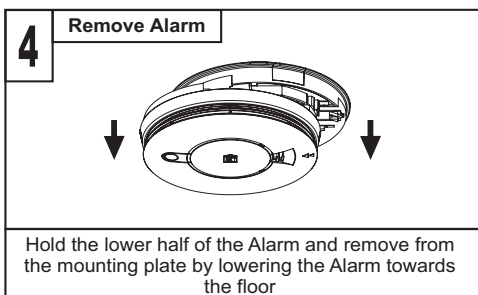
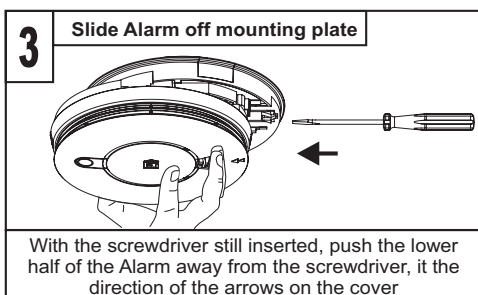
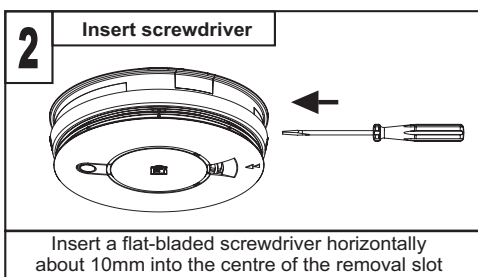
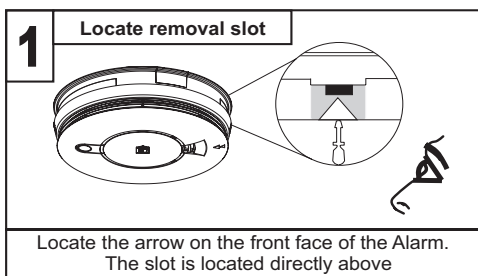
A maximum of 250 metres of wire can be used (maximum resistance between detectors 50 Ohms).

Alarms should be interconnected only within the confines of a single family living unit.

The Alarm can also be RF interconnected to other RF Alarms and devices by installing an Ei168RC RF base.

Removing Alarms

WARNING: Disconnect mains before removal







Disposal of Alarms

The Alarm must be recycled in accordance with the directive 2012/19/EU on waste electrical & electronic equipment (WEEE).

DO NOT dispose of your Alarm in a fire.

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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Ei Electronics, Shannon, Co. Clare, Ireland 21 DoP 21-0002	Ei Electronics, Shannon, Co. Clare, Ireland 21 DoP No. 21-0002
EN14604:2005 + AC:2008 Smoke Alarm Devices: Ei146e	
Fire Safety	
Nominal activation conditions/ sensitivity, response delay (response time) and performance under fire condition	Pass
Operational reliability	Pass
Tolerance to voltage supply	Pass
Response delay and temperature resistance	Pass
Vibration resistance	Pass
Humidity resistance	Pass
Corrosion resistance	Pass
Electrical stability	Pass
	
Heat Alarm Devices: Ei144e	Heat Alarm Devices: Ei144e

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

Contact Us

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