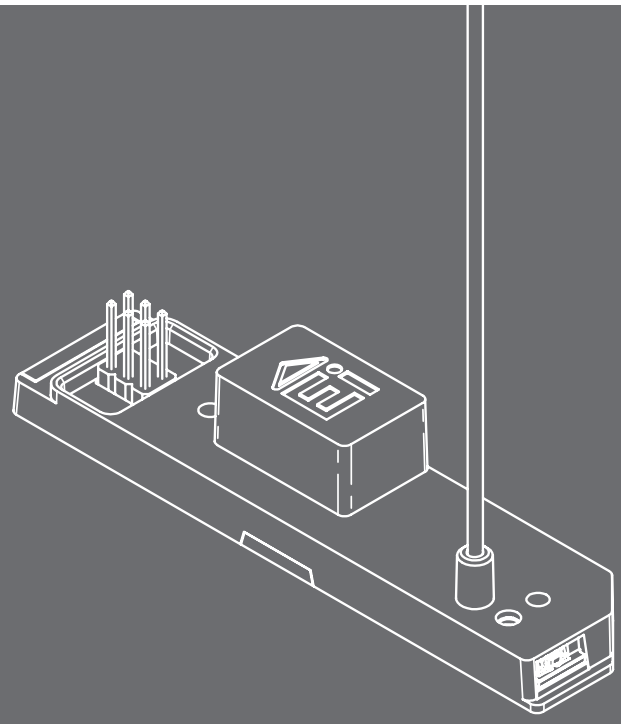


SmartLINK Module Ei3000MRF

for Mains Powered Multi-Sensor Fire / Smoke / Heat / CO Alarms - Ei3000 Series

Instruction Manual

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 leaflet should be regarded as part of the product.

If you are just installing the unit, the leaflet **MUST** be given to the householder. The leaflet is to be given to any subsequent user.

Contents

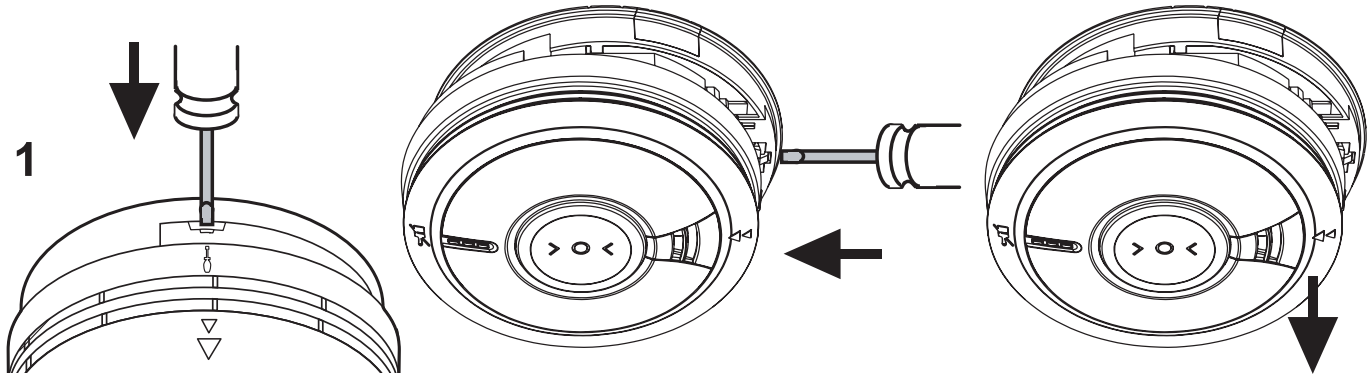
1. Installation and House Coding

Disconnect the mains power supply. it is now safe to remove the Alarm from its mounting plate. Using a screwdriver, insert into the removal slot on the side of the Alarm (see *Removing the Alarm* section of the Alarm manual).

Push the lower half of the Alarm away from the screwdriver, in the direction of the arrow on the cover (*see Fig. 1*).

CAUTION: The existing hard-wired interconnection may need to be disconnected at this point (refer to the Installation section in the Alarm instruction manual). If a hard-wired connection and an RF connection exist between the **SAME** two Alarms, a continuous Alarm loop signal may occur.

Figure 1



Fitting the Ei3000MRF Module

To fit the Ei3000MRF Module, first hold the flexible antenna and guide it into its designated hole in the rear of the unit until about 2/3 of its length is inserted (*Fig. 2a*). Then, hold the module housing (*Fig. 2b*) and plug it into the Alarm, being careful to align the pins and keeping them perpendicular to the base as the module is inserted (*Fig. 2c*). Ensure the module is fully home, by checking that it is flush with the surrounding Alarm housing.

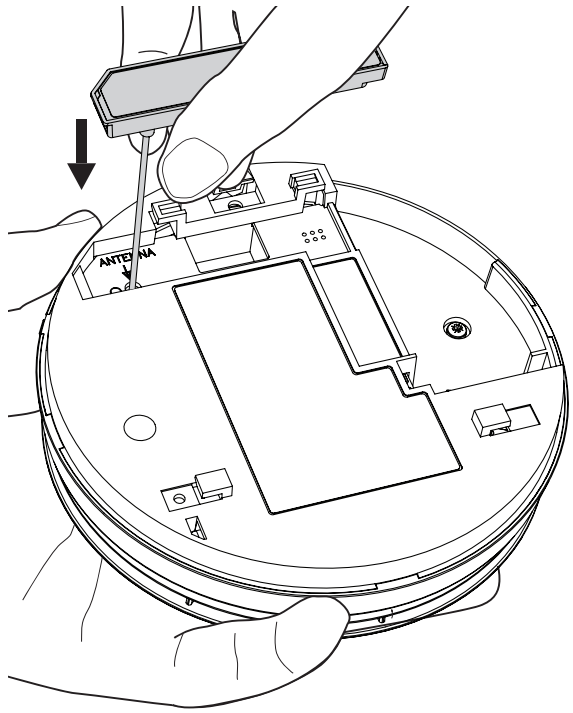


Figure 2a

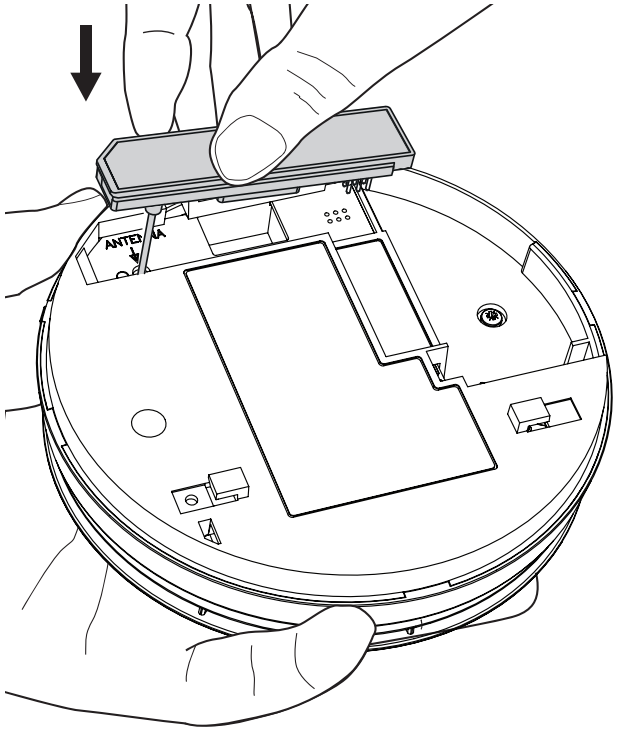


Figure 2b

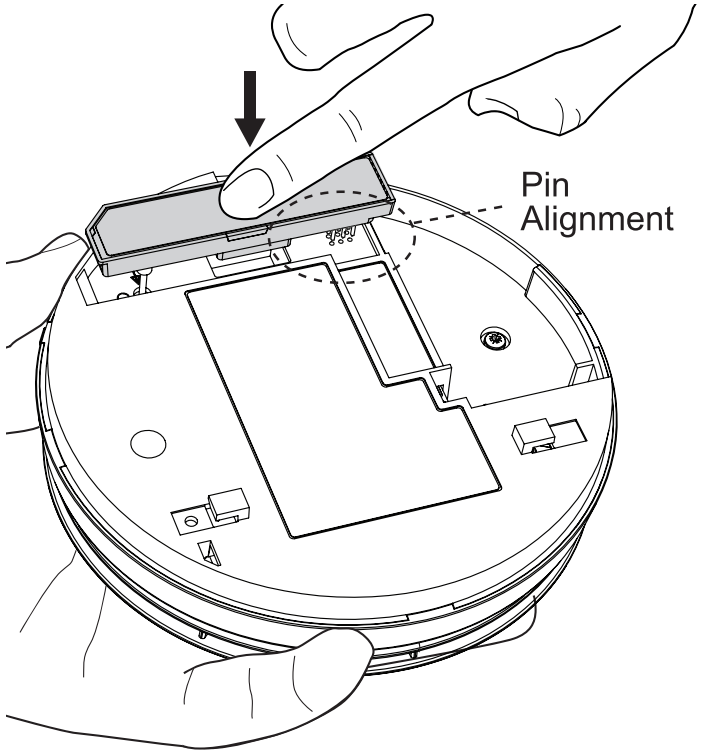


Figure 2c

Note: If the Alarm starts beeping rapidly after the module has been fitted, the module has to be reset (see Factory Reset section).

The LED on the side of the Alarm may flash red, blue, green.

Re-attach the Alarm to the mounting plate. Switch back on the mains power. Check for the green LED on the Alarm cover. Power supply to the Ei3000MRF will be confirmed by the LED on the side of the Alarm flashing in red, blue and green (*see Fig. 3*).

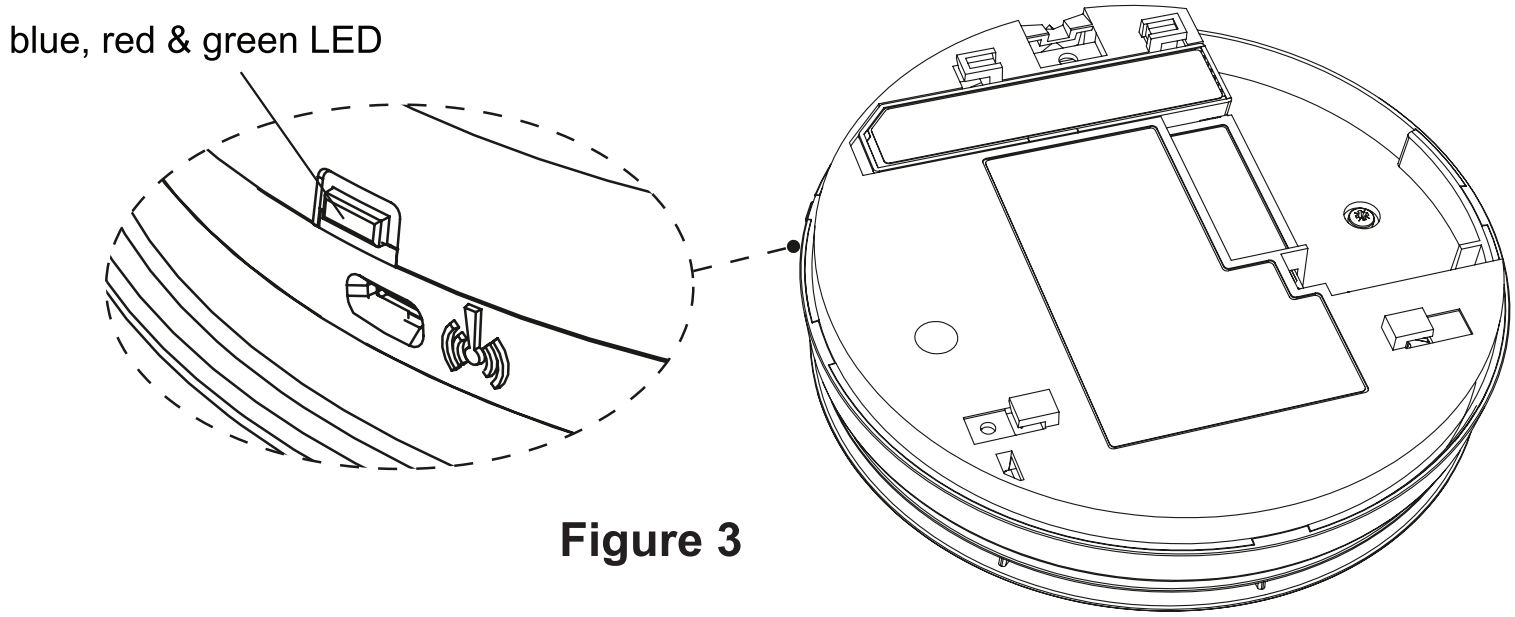
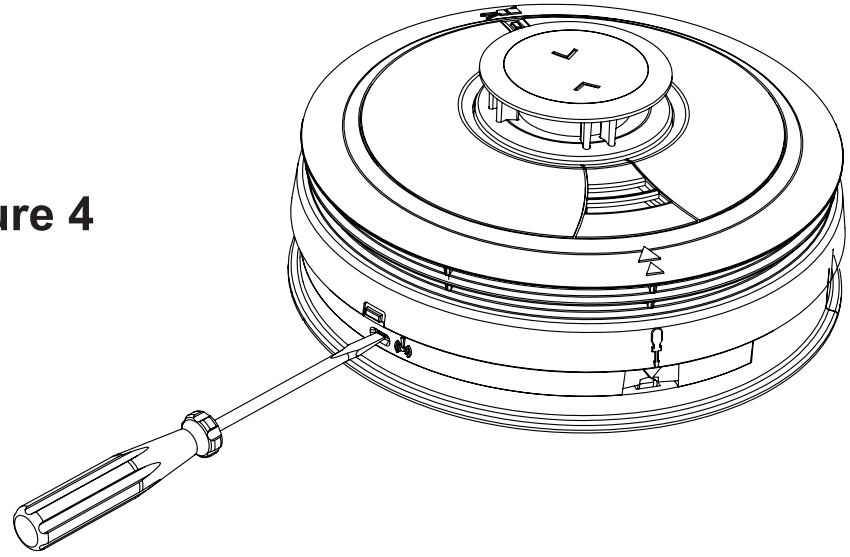


Figure 3

House Coding the Unit

Using a screwdriver, press and hold the House Code button on the side of the unit until the LED lights up blue (*see Fig 4*). Immediately release the button, the LED will flash blue rapidly and then stop.

Figure 4



Note: If the LED light up in a different colour than the one you expected, keep the house code button pressed until the colour you are looking for lights up again.

The flashing will repeat every 5 seconds thereafter. Repeat this procedure for all Alarms in the system.

Note: If the LED flashes red rapidly after the House Code button is released, the communication has failed between the Alarm and the module. The module will not enter House Code mode. Remove the module from the Alarm, re-seat and try again. If it fails the second time, then contact us.

Check to ensure all RF devices have been successfully House Coded. This can be done by counting the number of blue flashes on each Alarm. The number of flashes should correspond to the number of RF devices in the system. (i.e. 4 flashes if there are 4 devices in the system).

Note: If an Ei3028 Alarm is included in the system, there will be an extra blue flash (this corresponds to the 2 independent sensors in the Alarm head). e.g with 4 RF devices in a system, one of which is an Ei3028 you would expect 5 blue flashes during the housecode process and so on.

N.B. We recommend, for ease of installation and RF communication, that up to 12 RF devices can be installed in any one RF coded system. Please contact us for further advise if additional RF devices are required.

You can exit this mode by pressing the House Code button on one of the RF Alarms. Keep the button pressed until the LED lights up blue and then release.

The Alarm will now send a signal to all the other RF devices in the system to exit House Code. Alternatively, the RF Alarms will automatically exit the House Code mode after 30 minutes. To check the system, press the test button on any Alarm. After a few seconds all Alarms should now sound. All Alarms in the system should be checked similarly.

Caution: Do not House Code another group (e.g. adjacent apartment) until the current House Code has been completed.

Remote House Coding

If you want to add an Alarm in a system that has already been house coded, follow these steps:

Using a screwdriver, press and hold the House Code button of one of Alarms in the system until you see all colours flashing - red, blue, green (typically takes about 8 seconds) and then release. This Alarm will now send an RF message to all the previously installed (compatible) devices to re-enter House Code mode.

Put the new Alarm you wish to add to the system into House Code mode (see "*Installation and House Coding*" section). As before, allow sufficient time so that all Alarms are now house coded correctly (this can be confirmed by counting the number of flashes on each Alarm). You can then exit House Code mode manually or let it exit automatically after 30 minutes. (N.B. for this feature to work all devices in the system must be SmartLINK or RadioLINK+).

Factory Reset

Sometimes in order to resolve an RF communication issue it may be necessary to reset (factory reset) and House Code the system again. To do so, press and hold the House Code button until you see a flashing blue light (approx. 7 seconds), release immediately. Repeat this procedure on all Alarms.

Removing the Ei3000MRF Module

If it is necessary to remove or replace an RF Module already fitted to an Alarm, it can be taken out by firstly using your index finger to lift it by a few millimeters to release the connection pins (*Fig. 5a*), repeat this process on the opposite end to release the antenna (*Fig. 5b*), after which the module can be fully removed from the Alarm by lifting it away while keeping the pins perpendicular to the Alarm (*Fig. 5c*).

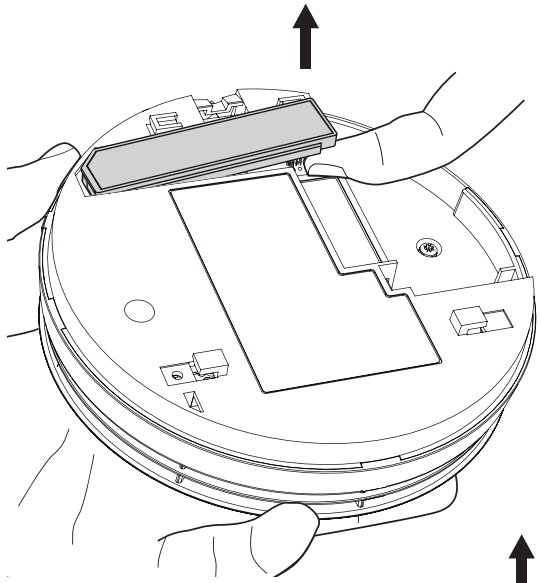


Figure 5a

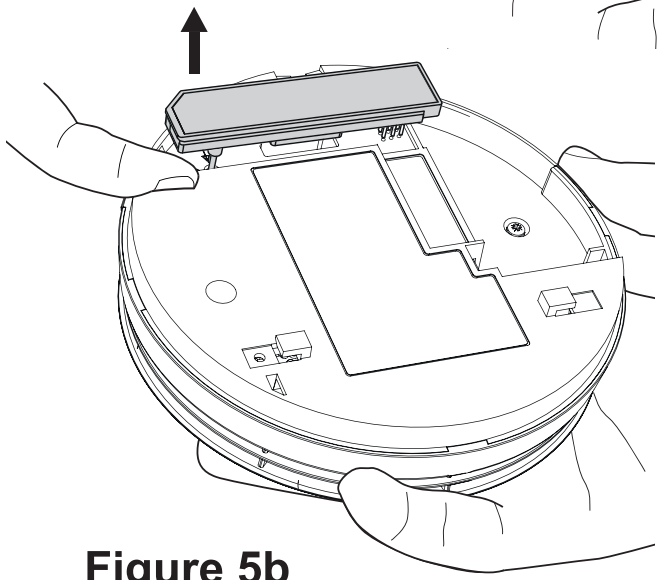


Figure 5b

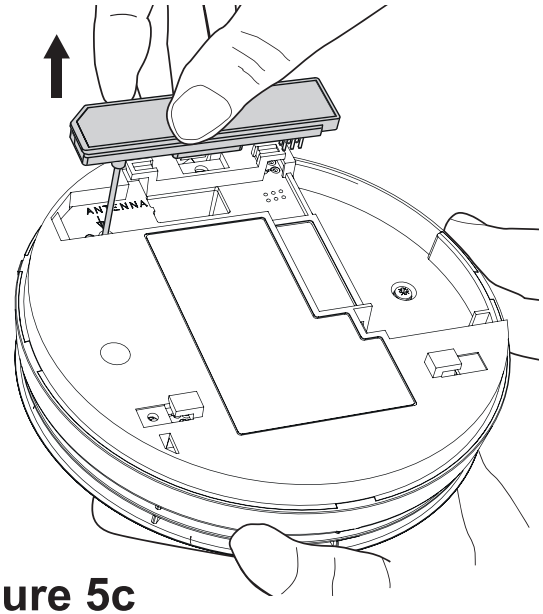


Figure 5c

Mixed Hardwired Interconnect and Wireless Interconnect (Hybrid) System

If the interconnected system includes a mix of CO and Fire detection, it is important to know that the hardwire interconnect line does not communicate the alarm type (Fire or CO), whereas the RF interconnection does. In this case, RF only interconnect is recommended.

If a hybrid system is used, the hardwired interconnected sections should be separated into CO only Alarms and Fire/Smoke/Heat Alarms.

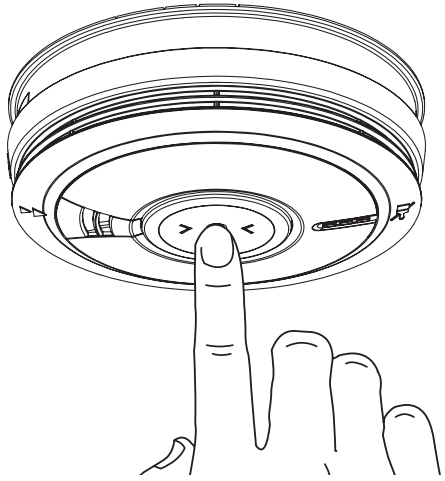
If an Ei3028 Heat and CO Alarm is required on a hardwired section, it should be fitted to a Fire/Smoke/Heat only section, one per section. The Ei3028 should also be the section's link to the RF network of the hybrid system.

For hybrid and complex configuration, please contact customer support for advice.

2. Testing the System

Frequent testing of the system is a requirement to ensure its continued and safe operation. Guidelines and best practices for testing are as follows:

1. After the system is installed.
2. Regularly (monthly testing is recommended).
3. After prolonged absence from the dwelling (e.g. after holiday period).
4. After repair or servicing of any of the systems elements or household electrical works.
5. After renovations to the house.



To test the SmartLINK system, press and hold the test button on one of the Alarms. The blue LED from the Ei3000MRF will illuminate for approximately 3.5 seconds. Continue to hold the test button until all the Alarms in the system are sounding.

This will take between 20 to 45 seconds depending on the number of Alarms and their locations in the system, e.g. a system with 12 Alarms may take up to 45 seconds for all to sound. Release the test button when the test is completed.

The local Alarm will stop sounding but you will hear the other Alarms still sounding in the distance.

3. Identifying the source of the alarm

If an interconnected RF system includes a mix of Carbon Monoxide/Dual Sensor Alarms and Smoke/Heat/Multi-sensor Alarms, it is important that during an alarm, the source is identified quickly so that the correct course of action is taken; i.e.

- If it is due to a Carbon Monoxide Alarm, ventilate the residence and follow the instructions in the Carbon Monoxide Alarm manual.
- If it is due to a Smoke or Heat Alarm, evacuate the residence and follow the instructions in the Smoke Alarm manual.

The Alarm with the red LED flashing is the source of the alarm.
We recommend however, that an Ei450 Alarm Controller is used. As during an alarm, an icon on the Ei450 will indicate if it is a CO or Fire incident allowing you to act rapidly.

4. SmartLINK Troubleshooting

It is important that all Alarms in your system communicate with each other. The number of walls, ceilings and metal objects in the signal path will reduce the strength of the SmartLINK signals between the Alarms. Accordingly, one or more Smoke/Heat/CO Alarms may have difficulties in communicating to all the other Alarms in the system.

If, when checking the SmartLINK interconnection, some of the Alarms do not respond to the button test, then you will need to either:

(i) Position another SmartLINK Alarm to act as a 'repeater' between the Alarms which are not communicating and so shorten the path and/or by-pass an obstacle which is blocking the signal. When the new Alarm is fitted, House Code all Alarms again, as described above.

(ii) rotate / re-locate the Alarms (e.g. move them away from metal surfaces or wiring).

After making these changes to the RF signal path, the SmartLINK signals may still not be reaching all the Alarms in your system, even though they have already been House Coded successfully (see Section on "*Limitations of Radio Communications*").

It is important to check that all Alarms are communicating in their final installed positions. If Alarms are rotated, have had their antennas extended and/or re-sited, we would recommend that all the Alarms are returned to the factory settings and then House Coded again in their final positions (see above). The SmartLINK interconnection should then be checked again by testing all units.

(NB. The SmartLINK module can be returned to the original factory settings by pressing and holding the House Code Button until the blue light flashes. This will take about 7 seconds. This clears the embedded House Codes).

5. Indicator summary table

LED			Sound	What it means
Blue	Red	Green		
 x 1	 x 1	 x 1		Module Power up when fitting RF module into the Alarm and/or when fitting the Alarm onto the mounting plate
 1 x 3.5sec				RF transmission when entering/exting House code mode
				Normal RF transmision for communication between devices
		 1 x 3.5sec		RF transmission when entering/exting Monitoring mode (contact us for more details)
				Communication failure between the module and the Alarm - remove the module, re-seat and re-try again. If it fails again, contact us.
			Rapid Beeping	Incompatible house code - factory reset the module and re-try again. If it fails again, contact us

 = Flash

6. Limitations of Radio Communications

Ei Electronics radio communication systems are very reliable and are tested to high standards. However, due to their low transmitting power and limited range (required by regulatory bodies) there are some limitations to be considered:

(i) Receivers may be blocked by radio signals occurring on or near their operating frequencies, regardless of the House Coding.

(ii) Alarms with SmartLINK modules should be tested regularly, at least weekly. This is to determine whether there are sources of interference preventing communication, that the radio paths have not been disrupted by moving furniture or renovations, and if so, to give a warning of these and other faults.

7. Guarantee

Ei Electronics guarantees this RF SmartLINK Module for five years from date of purchase against any defects that are due to faulty materials or workmanship. 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. If this RF SmartLINK Module should become defective within the guarantee period, it must be returned to Ei Electronics, with proof of purchase, carefully packaged and with the problem clearly stated. We shall at our discretion repair or replace the faulty unit.

Do not interfere with this device or attempt to tamper with it. This will invalidate the guarantee, and may result in malfunction. This guarantee is in addition to your statutory rights as a consumer.

8. End of Life (EOL) Check

Check the 'replace by date' label on the Ei3000MRF modules. If the date has been exceeded then the module should be replaced.
The most convenient time to check is when the Alarm signals by 3 short chirps with 3 yellow LED flashes every 48 seconds that it has reached its end of useful life and needs to be changed.

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.

9. Technical Specifications

Power Supply:	Powered by Alarm head unit
RF Range:	A minimum of 100 metres in free space
RF Visual Indicator:	3 colour LED: Blue, Red, Green *Flashing Blue:* RF transmission *Red, Blue, Green:* Power up sequence and remote house code mode entry
RF Frequency:	868.499MHz (1% duty cycle)
Max RF Power:	2.1dBm
Receiver category:	2
Dimensions:	80mm length x 19mm depth x 16mm height
Temperature Range:	-10° to 40°C
Humidity Range:	15% to 95% Relative Humidity
Interconnect *:	Up to 12 SmartLINK modules
Approvals:	RF performance to EN 300 220-1 in accordance with EN 300 220-2 EMC performance to EN 301 489-1 in accordance with EN 301 489-3 RF Safety to EN62479

* We recommend, for ease of installation and RF communication, that up to 12 RF devices can be installed in any one RF coded system. Please contact us for further advice if additional RF devices are required.

Hereby, Ei Electronics declares that this Ei3000MRF SmartLINK Module is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The Declaration of Conformity may be consulted at www.eielectronics.com/compliance

Hereby, Ei Electronics declares that this Ei3000MRF SmartLINK Module is in compliance with the essential requirements of the Radio Equipment Regulations 2017. The Declaration of Conformity may be consulted at www.eielectronics.com/compliance

Aico

Oswestry, Shropshire SY10 8NR, U.K.

Tel: 01691 664100

www.aico.co.uk

Ei Electronics

Shannon, V14 H020, Co. Clare, Ireland.

Tel:+353 (0)61 471277

www.eielectronics.com

P/N B19047 Rev5