

**RadioLINK**®  
**Alarm Controller**  
**Fire and CO**

Model: Ei450



## 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 Controller. The booklet should be regarded as part of the product.

If you are just installing the unit, the booklet must be given to the householder. The booklet is to be given to any subsequent user.

## Contents

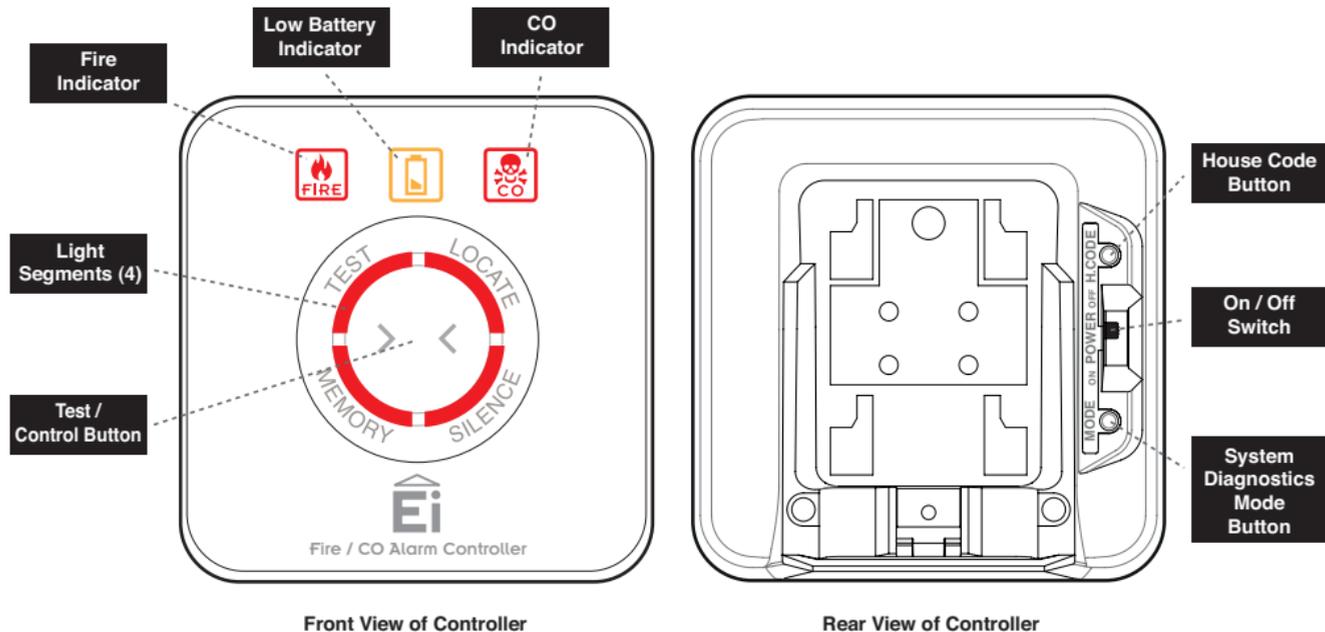
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## 1. Overview

Congratulations on purchasing the single button Alarm Controller for RadioLINK Fire and Carbon Monoxide (CO) Alarm systems. The Alarm Controller tests and controls Fire, CO and combined (Fire + CO) RadioLINK Alarm systems.

### Alarm Controller functionality

Function	Description
Test	All the Alarms can be tested from a centralised location
Locate	This will silence all the Alarms in the system except the one sensing Fire or CO
Silence	This will silence the source Alarm(s)
Fire Indicator	Indicates that a Fire Alarm has been activated
CO Indicator	Indicates that a CO Alarm has been activated
EOL Indicator	Indicates that the Alarm Controller battery has reached its end of life (EOL)
Memory	The memory feature is confined to the system diagnostic mode and is not visible to the end user. The memory feature only works with some RadioLINK Alarms - Contact us or visit our website for details.



## Wireless Smoke Alarm System



RF Smoke Alarm



RF Smoke Alarm



RF Smoke Alarm



Alarm Controller



Universal Interface

## Wireless Smoke & Carbon Monoxide Alarm System



RF CO Alarm



RF Smoke Alarm



RF Smoke Alarm



Alarm Controller



Universal Interface



Model No. - Alarms	Comment
Ei140RC, Ei160RC & Ei2110 Series Smoke Alarms	The Alarms must be fitted on Ei168RC RadioLINK bases
Ei262 Mains Carbon Monoxide Alarms	The Ei262 has built-in RadioLINK technology
Ei605 & Ei650 Series Smoke Alarms	Alarms must be fitted with the correct Ei605 & Ei650 series RadioLINK module
Ei208 powered for life Carbon Monoxide Alarms	The Alarms must be fitted with Ei200MRF RadioLINK modules
Ei170RF & other RadioLINK devices	Contact us or visit our website for details

Due to our continuous improvements policy, product performance and features are being frequently updated" - See **Contact Us** section

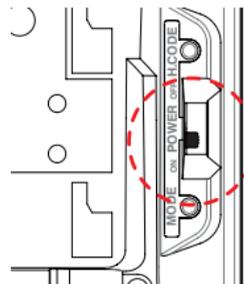
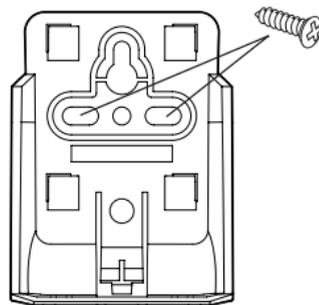
## Typical System Layout

Install the Alarm Controller mounting plate at an accessible point on the wall 1.4m +/- 0.2m from floor level. Consider an alternative location if the controller will be operated by a disabled person.

Also consider security and chose a location where it will not be accidently or otherwise operated.

Turn on the system by sliding the switch to the on position & check the power up sequence.

A video of the Alarm Controller installation, house coding & operation is available on our website - see 'Contact Us' section.



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## Power up sequence

- 1 FIRE, BATTERY & CO indicators flash
- 2 Each individual segment lights up red
- 3 Each individual segment lights blue
- 4 Each individual segment lights green

After power up sequence all lights will go off to indicate standby mode.

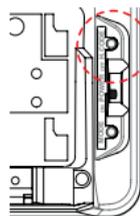


### 3. House Coding

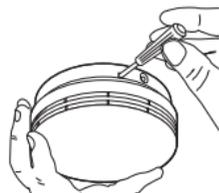
It is essential to House Code the Alarm Controller to all the other RadioLINK Alarms and devices in the system to ensure they will not communicate with nearby systems. Failure to house code the system may also result in a system malfunction.



Press and hold the House Code button (H CODE) on the back of the controller until all segments light up blue, then release. The segments will flash rapidly for a moment on entering house code.



House code all other RadioLINK Alarms and devices in the system. Consult the instruction manuals on how to house code the Alarms and devices. It is essential that each individual alarm / device is put into house code mode in it's actual location.



Return to the Alarm Controller and check that all segments are flashing blue. The number of flashes should equal the number of RadioLINK Alarms and devices in the system. A system with 3 x Smoke Alarms, 1 x CO alarm and 1 x Alarm Controller will result in 5 blue flashes. It may take up to 10 minutes before all 5 flashes are seen.

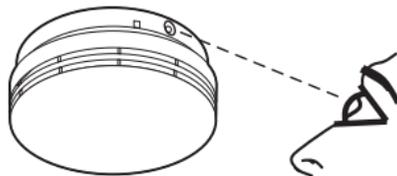
The flash pattern will repeat every 5 to 10 seconds while the Alarm Controller remains in house code.

If it fails to flash the correct number of times, then consult the '**Troubleshooting the RadioLINK**' section of this instruction manual.



Now, walk around the house to verify that all the other RadioLINK Alarms and devices are giving the correct amount of flashes.

If any of these fail to flash the correct number of times, then consult the '**Troubleshooting the RadioLINK**' section of this instruction manual.



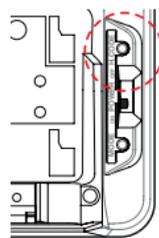
To complete the commissioning, the system must exit house code mode.

The units will automatically exit house code after 30 minutes. Once coded the system will not communicate with any other RadioLINK Alarms and devices outside the house coded group.



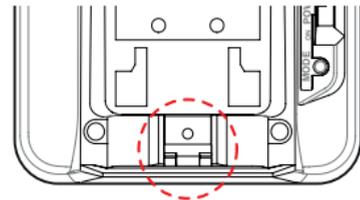
To manually exit house code press the house code (H CODE) button on the back of the Alarm Controller. When all the segments light up blue, release the button. This unit will then send an exit house code signal to all the other RadioLINK Alarms and devices to exit house code.

After a short period the blue light will turn off and the system will return to standby mode (normal). Depending on the number of RadioLINK Alarms and devices in the system this period could vary from 5 to 20 seconds.

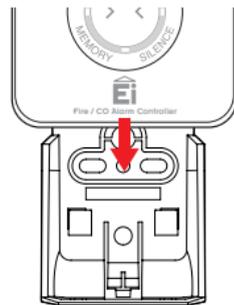


If you choose to make the Alarm Controller tamper proof remove the pip (plastic post) using a pliers or similar tool.

**Do not do this until the house coding procedure has been completed!**



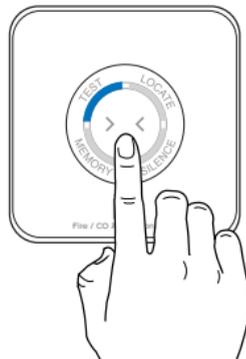
Slide the Alarm Controller onto the mounting base on the wall.



Check that the RadioLINK system is working by pressing the button on the Alarm Controller until the TEST segment lights blue. This indicates a RadioLINK test signal has been activated.

All the Alarms in the system will sound for a short period and then stop.

If the test fails, consult the 'Troubleshooting the RadioLINK' section.



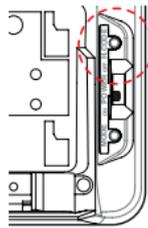
## Reset the house code

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Sometimes in order to resolve an RF communication issue, e.g. Alarms have to be relocated, it may be necessary to reset and house code all RadioLINK Alarms and devices in the system again.

To reset the Alarm Controller press and **hold** the house code button. All segments will flash blue briefly and then go solid. After 5 seconds approx. the segments will start flashing blue. At this point release the house code button. The Alarm Controller has now been reset.

To reset the other RadioLINK Alarms and devices in the system consult the appropriate instruction manuals.



## 4. Operation



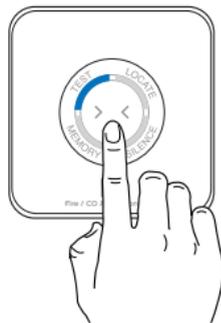
### WARNING

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

1. After the system is installed.
2. Once weekly thereafter.
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.

### Testing the alarm system

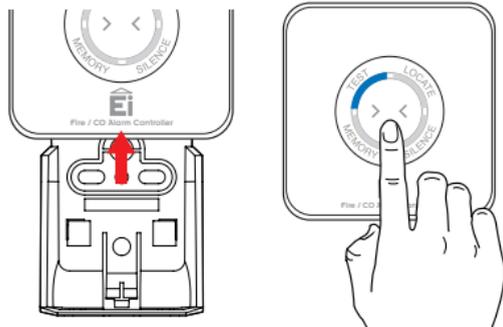
Press and hold the button on the Alarm Controller until the TEST segment lights up blue. When all the alarms in the system are sounding release the button. The alarms will stop sounding after a period and the TEST segment will flash blue to indicate the test has been completed.



## Walk round test (optional)

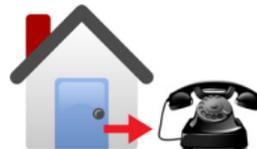
Remove the Alarm Controller from its cradle. If the unit has been tamper proofed you will need to release the latch with a screwdriver.

With the Alarm Controller in your hand press and hold the button. Walk around the house and verify that each Alarm is sounding. When testing is complete release the button and replace the controller in its cradle. If the test fails go to 'Troubleshooting the RadioLINK' section.



## When the alarm system sounds

If there is a fire, immediately evacuate the premises and telephone the fire brigade.



If the source of the alarm is not obvious go to the Alarm Controller and check to see which indicator is illuminated, Fire or CO.

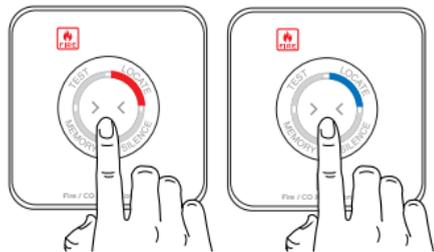
If the CO indicator is flashing, open doors & windows while evacuating the premises. Contact the appropriate authorities to report the incident.



## Locate the source Alarm(s)

If the FIRE indicator is lighting and there is no obvious fire, press the button. The LOCATE segment will change from red to blue.

After a 10 to 40 seconds period, all the Alarms in the system will stop sounding except the source Alarm(s).

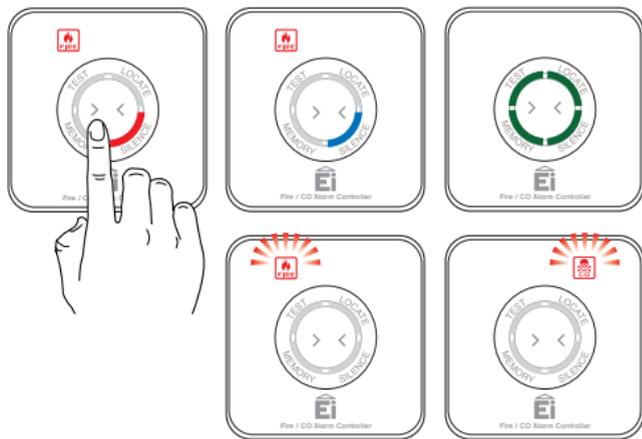


## Silence the source Alarm(s)

If you are satisfied there is no fire but the Smoke/Heat Alarm is still continuing to alarm you may now silence the system. Wait until the SILENCE segment is flashing red and then press the button. The SILENCE segment will turn blue, after a delay the Alarm(s) will stop sounding and all segments on the controller will flash green momentarily to indicate that the Alarm Controller is back in standby.

### Temporary Alarm Activation:

Your alarm system could be activated by a false or temporary alarm condition and then return to normal



standby mode without being noticed. Should this happen the Ei450 will continue to flash either the Fire or CO icon rapidly for a two minute period. If the system has been activated by a CO alarm the Ei450 will continue to flash the CO Icon for a 24 hour period but at a lower rate of 1 flash every 60 seconds.

Should you observe this condition contact the appropriate authorities immediately.

## 5. Guarantee

Ei Electronics guarantees this Alarm Controller for 5 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.

This guarantee does not cover costs associated with the removal and/or installation of units.

If the product should become defective within the guarantee period, it may be returned with proof of purchase, carefully packaged, and with the problem clearly stated to the place of purchase or phone one of these numbers for advice.

UK: 0870 758 4001 ROI: +353 61 471277

We shall at our discretion repair or replace the faulty unit.

## 6. Troubleshooting the RadioLINK

If, when checking the RadioLINK interconnection, some of the Alarms do not respond to the Alarm Controller remote control test, then:

- (i) Ensure the Alarm Controller has been activated correctly. Check that the power on procedure operates as described in the '**Installation**' section.
- (ii) Repeat House Code procedure (see '**House Coding**' section).
- (iii) Relocate the Alarm Controller and/or rotate/relocate the RadioLINK Alarms. There are a number of reasons why the RadioLINK signals may not reach all the Alarms in your system. Try rotating the Alarms or relocating the Alarms (e.g. move them away from metal surfaces or wiring) as this can significantly improve signal reception.

Rotating and/or relocating the Alarms may move them out of the range of existing units even though they may have already been House Coded correctly in the system. It is therefore important to check that all Alarms are communicating in their final installed positions. If Alarms are rotated and/or relocated, we recommend that all Alarms are returned to the factory settings (see the respective use and care instructions). Then House Code all Alarms again in their final positions. The RadioLINK interconnection should then be checked again.

## 7. Technical Specification

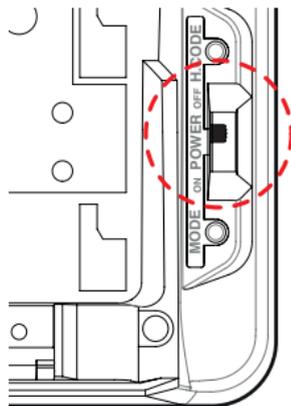
Supply Voltage	Powered for life Lithium battery
Battery Capacity	1600 mAh
RF Frequency	868.499Mhz
Temperature Specification	0°C to 40°C (Cat 3)
Humidity	15% - 95% (Non Condensing)
Receiver Category	Cat 2
RF Performance	EN 300-220-2
EMC Performance	EN 301 489-1, EN 301 489-3
Safety Testing	EN 60065
RF Power	+7dBm
Number of RF Alarms	12 per house code group

## 8. Getting the Alarm Controller serviced

If your Alarm Controller fails to work after you have carefully read all the instructions and checked that the unit has been installed correctly contact Customer Assistance at the nearest address given at the end of this booklet.

If it needs to be returned for repair or replacement, slide the switch to the off position, place it in a padded box and send it to "Customer Assistance and Information" at the nearest address given on the unit or in this booklet.

State the nature of the fault, where the Alarm Controller was purchased and the date of purchase.



## 9. System Diagnostics



**WARNING**

The system diagnostic mode does not work with all RadioLINK alarms and accessories. If the system diagnostic features are required for your installation please contact technical support to verify that all your RadioLINK components are compatible with these features.



**WARNING**

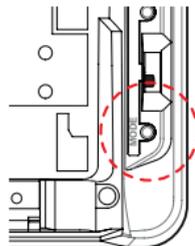
The System Diagnostic features are intended to assist professional installation and maintenance personal to install, commission and maintain the RadioLINK Fire and CO systems utilising the Alarm Controller.

These features are not intended for the home owner / tenant and should only be used by personnel described above.

### System Diagnostic Mode

A special system diagnostic mode will facilitate the following special tests.

1. Two minute "Long Test". This is an alternative to the walk round test described previously.
2. The check alarm memory test will identify an Alarm that had been previously activated.



To enter the system diagnostic mode use a small screwdriver to press and release the MODE button on the back of the unit. All segments will flash green almost immediately.

Quickly release the MODE button, the system diagnostic mode is now activated.

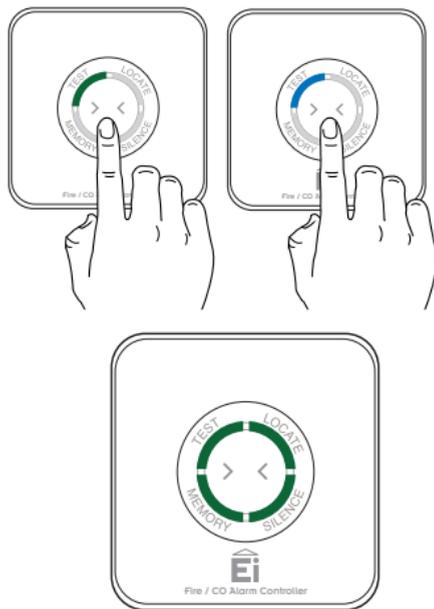
## Two minute - Long test

On entering the system diagnostic mode the TEST segment will flash green inviting you to press the button.

When you press the button the TEST segment will turn blue and all the Alarms in the system will sound for 2 minutes.

This will allow you to walk around the house and verify that each individual Alarm is sounding. During the test you may notice the TEST segment flash blue periodically indicating that a refresh signal is being transmitted.

The test will automatically cease after 2 minutes or if the button is pressed again. All the segments will flash green to indicate the test has been completed. Wait 2 minutes before performing any additional tests.



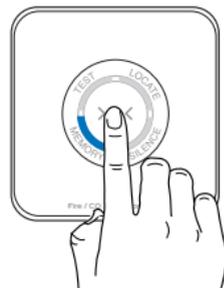
## Check Alarm memory

RadioLINK enabled Smoke and CO alarms have the ability to record if they have been previously activated and store it in their memory. This can then be recalled via the diagnostic mode.

On entering the system diagnostics mode, if an alarm memory has been set, the MEMORY segment will flash green and the Fire or CO indicator will flash. Press the button until the MEMORY segment turns blue. This will then locate the Alarm that was previously activated and cause it to sound for a number of seconds (depending on the number of RadioLINK Alarms and devices in the system).

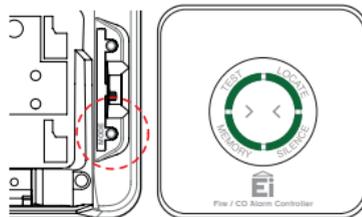
Pressing the button again will cause it to sound again. This allows you to walk around the house until you have found the activated Alarm.

The Alarm Controller will automatically exit the alarm identification test after 2 minutes or if the MODE button is pressed again. All segments will turn green for a brief period as the Alarm Controller exits the system diagnostic mode.



## Erase Alarm memory

Press and **hold** the MODE button on the back of the unit. The green segments will light up. When these segments start flashing, release the button. Press the button on the alarm controller to test the system. The locate alarm memory is now cleared.



CE 0889

Hereby, Ei Electronics declares that this Ei450 RadioLINK Alarm Controller is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The Declaration of Conformity may be consulted at [www.eielectronics.com/compliance](http://www.eielectronics.com/compliance)

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.



## 10. Contact Us

As part of our continuous improvement policy, product performance and features are being frequently updated.

To facilitate this and keep you informed on the latest developments we have designed a product page on our website that has all the current information on this product. This page is in addition to the information in this manual and is not required for the successful installation and operation of your chosen product.

To access this website product page you may use your smart phone to activate the QR code or you can go to this page on our website [www.eielectronics.com/articles/ei450-memory-id-products.html](http://www.eielectronics.com/articles/ei450-memory-id-products.html)



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