

## UK Full Manual

### General Information

Read the instructions before commencing installation. The user is to retain the instructions for future reference.

- Espire Alarms have been designed and developed for fixed residential installation and use.
- After installation the Alarm is to be tested weekly: Press and hold the Test/ Hush button for at least 10 seconds to ensure the Alarm sounds and all interconnected Alarms activate.

### Product Description

- ES1CL Carbon Monoxide Alarm Powered by a 10 Year Lithium Battery
- ES1CHL Carbon Monoxide and Heat Multi-Sensor Alarm Powered by a 10 Year Lithium Battery

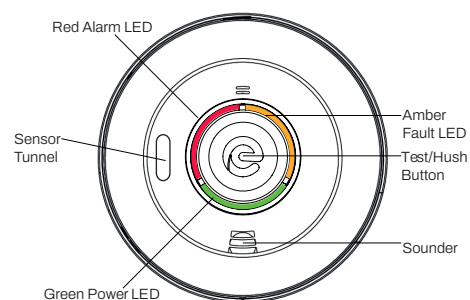
The Alarm head must be fitted onto the supplied Lock-In Base.

The RF-Link (ES1RF2) module is supplied with the Alarm or available separately.

The Alarm battery is sealed and non-replaceable.

The CO Alarm's response times are designed to act in accordance with BS EN 50291-1:2018;

Parts per Million (PPM) of CO	Time until Alarm
50	60-90 minutes
100	10-40 minutes
300	Must alarm in less than 3 minutes



### Recommended Alarm Location

Alarm locations are to follow guidance provided in British Standard; BS EN 50292:2023.

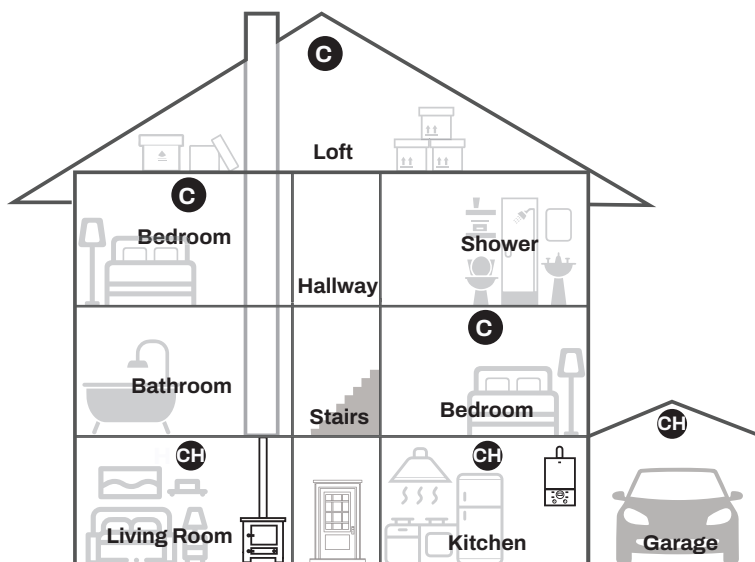
A Fire Risk Assessment is used to determine the locations required.

The standard states that a carbon monoxide alarm should be fitted in:

- Rooms that have any fuel-burning appliances - such as an open fire, gas cooker or boiler
- Rooms where people spend the most time – such as living rooms
- Rooms where people sleep
- Any room that has a flue running through it

If there are a limited number of Alarms then cover the areas that are at the highest risk:

- Rooms with a flueless or open-flued appliance such as an open fire, gas cooker or portable heater – these appliances would leak carbon monoxide directly into the room producing the greatest risk
- Rooms where the occupants spend the most time (living rooms, bedrooms) – this is to ensure that they are protected against any carbon monoxide exposure in these areas and also hear the an Alarm as soon as possible.



Multi Storey Dwelling Example

#### Diagram Key



ES1CL CO Alarm



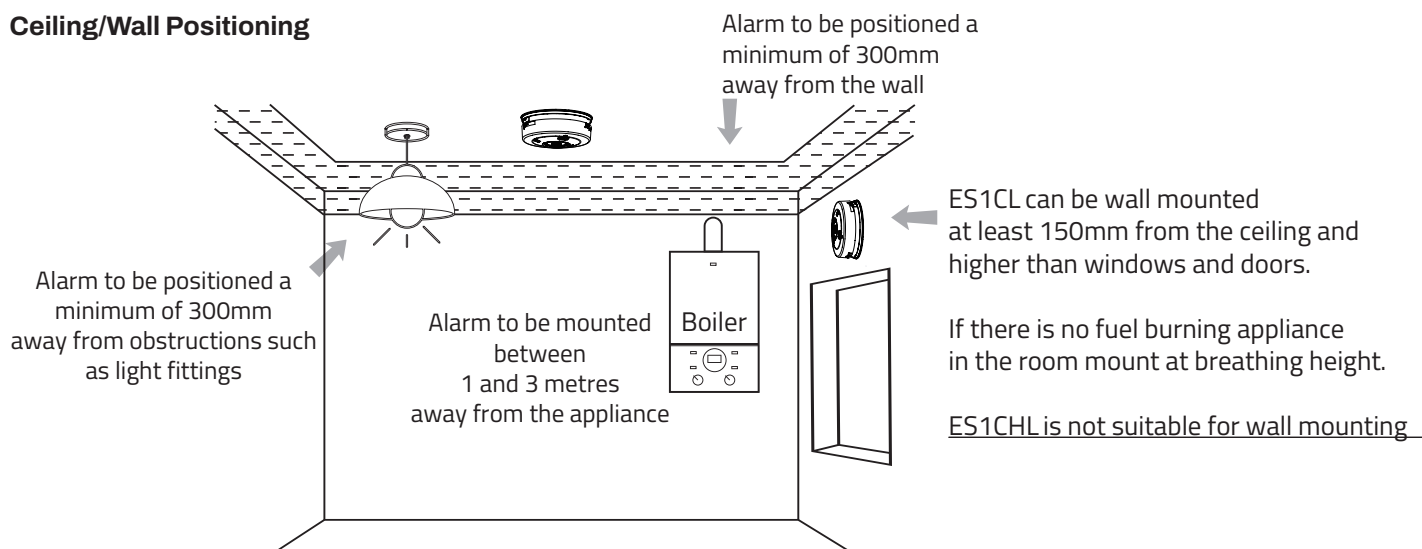
ES1CHL CO and Heat Alarm

## Alarm Installation

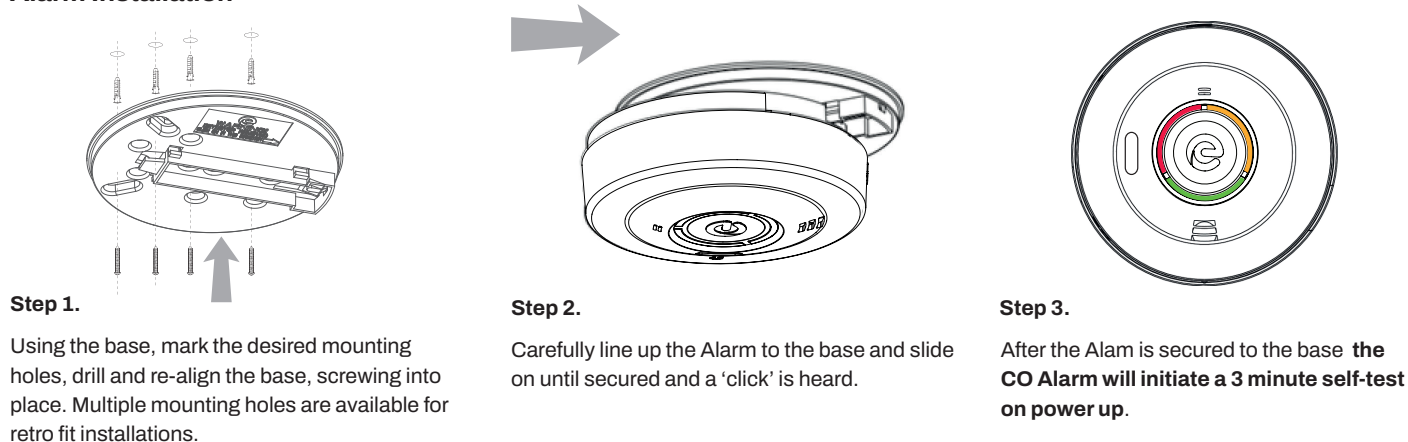
Alarm Installations are to follow guidance provided in British Standard; BS EN 50292:2023.

- For ceiling mounting, the Alarm will be at least 300mm from walls and any objects such as light fittings. It should be mounted between 1 and 3 metres away from the appliance, on a flat surface, with no obstructions such as existing pipes or wiring
- Avoid the following locations: sources of high humidity, condensation or steam, such as bathrooms and shower rooms; extreme temperatures exceeding 40°C or below -10°C; close to sources of heat or cool air which cause sudden temperature fluctuations.

## Ceiling/Wall Positioning

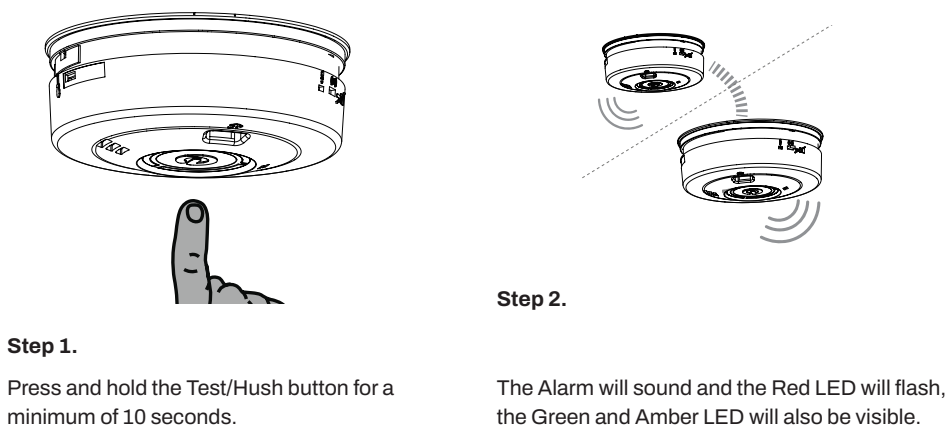


## Alarm Installation



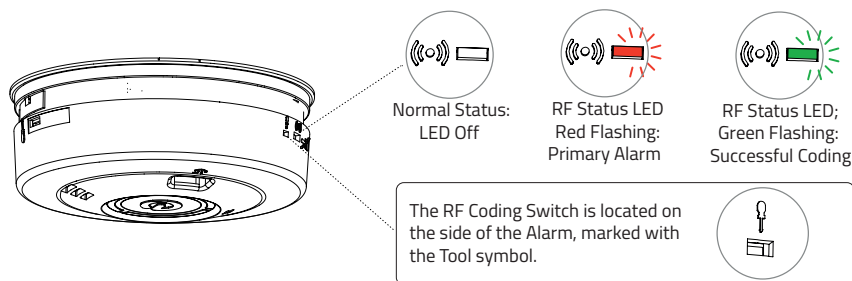
## Alarm Testing

Test the Alarm after installation, and weekly thereafter.



## RF-Link Introduction

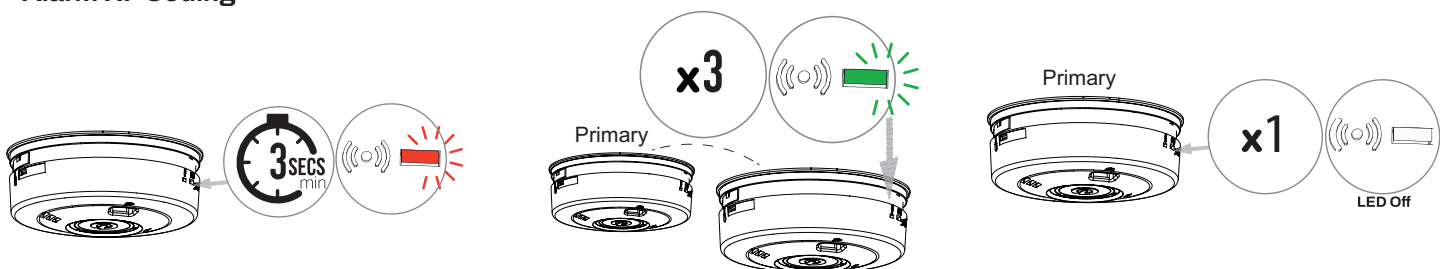
Up to 28 Alarms can be interconnected wirelessly via the RF-Link function. The RF-Link module is optional, ensure the correct model has been supplied. Prior to RF Coding, ensure that all system Alarms are functioning independently.



## RF-Link Coding

- As default the RF-Link modules are universally coded together. It is important to carry out the Alarm RF coding procedure to ensure the system operates independently from other nearby Espire Alarm systems.
- The first Alarm that enters RF Coding Mode will be assigned as the 'PRIMARY', all other Alarms will be assigned as a 'SECONDARY'. It is important to mark the PRIMARY Alarm with the label provided for future servicing of the system.

## Alarm RF Coding



### Step 1.

Using the supplied pairing tool press and hold the RF Coding Switch on one of the system's Alarms for a minimum of 3 seconds and release when the RF Status LED flashes Red.

### Step 2.

While the PRIMARY Alarm is in coding mode, at the next Alarm press the RF Coding Switch 3 times and the RF Status LED will turn Green to confirm successful coding. Repeat the process on the remaining Alarms.

**Note:** RF Coding Mode will be active for 30 minutes before auto time out.

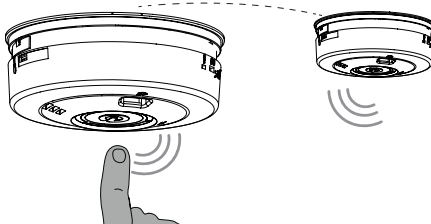
### Step 3.

Once all the Alarms have been coded to the PRIMARY Alarm, return to the PRIMARY Alarm and single press the RF Coding Switch and the RF Status LED will stop flashing. RF Coding Mode has now ended.

### Step 4.

After coding is completed, test each individual Alarm and check that all interconnected Alarms sound.

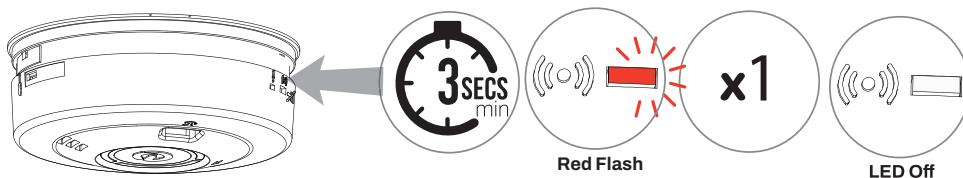
**Note:** There may be up to a 10 second delay for the coded Alarms to respond after pressing the Test/Hush button.



## Delete an RF-Link Coded Alarm

Press and hold the RF Coding Switch for 3 seconds and release when the RF Coding Status LED flashes Red.

Single press the RF Coding Switch to confirm deletion, the RF Status LED will stop flashing.



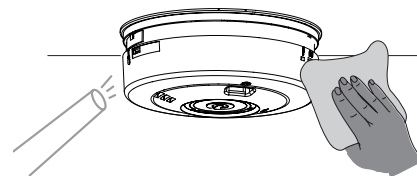
**Important:** If the PRIMARY Alarm is deleted, the system will require re-coding.

## Alternative RF-Link System Setup

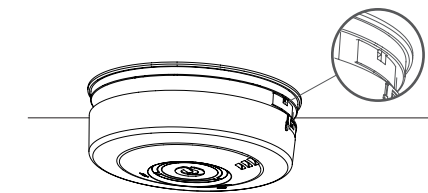
- Hybrid System; Systems that incorporate hardwired and RF-Link Alarms, consult the RF-Link module manual (ES1RF2) for limitations and further guidance.
- Remote Control System; Systems that incorporate the Espire Remote Control, consult the Remote Control manual (ES1REM), for limitations and further guidance.

## Alarm Maintenance and Cleaning

To avoid false alarms, clean the Alarm regularly to avoid debris build up from dust and insects. In dusty areas it may be necessary to clean the Alarm more frequently. Use a vacuum to remove dust build up and clean with a damp cloth, do not use cleaning products. Dry the Alarm thoroughly after cleaning.

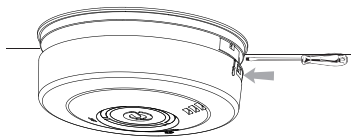


## Alarm Removal



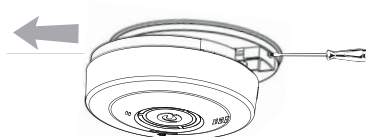
### Step 1.

Locate the screwdriver symbol on the side of the Alarm.



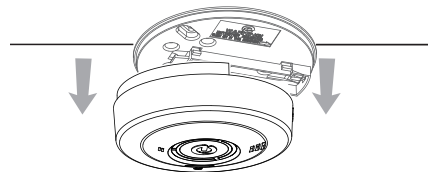
### Step 2.

Insert a flathead screwdriver horizontally into the centre of the release lever.



### Step 3.

With the screwdriver in place, push away the lower half of the Alarm from the screwdriver.



### Step 4.


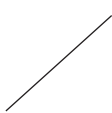
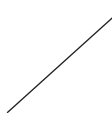
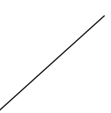
Hold the lower half of the Alarm and remove from the base.



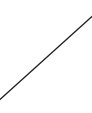
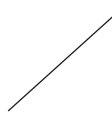



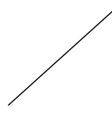



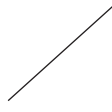

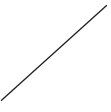
When disposing of the Alarm, the Alarm must be recycled in accordance to the Waste Electrical & Electronic Equipment (WEEE) regulations.

## Alarm Status Indication

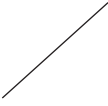
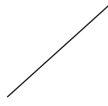



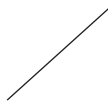
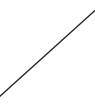

### Normal Mode

Green LED	Amber LED	Red LED	Sounder	Description
 1x 50 sec				The Green LED will flash every 50 seconds in normal mode.

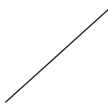



### Alarm Activation

Green LED	Amber LED	Red LED	Sounder	Description
				The Red LED flashes and the Alarm sounds 3 times to indicate a Heat Activation (Model: ES1CHL)
				The Red LED flashes twice every 4 seconds to indicate a CO Gas Level activation of >50PPM
				The Red LED flashes three times every 4 seconds to indicate a CO Gas Level of >100PPM

## Alarm Activation Continued


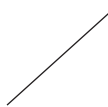



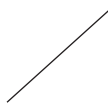



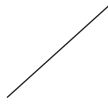

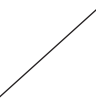

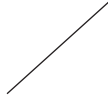



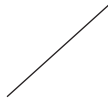


Green LED	Amber LED	Red LED	Sounder	Description
			 4x	The Red LED flashes and the Alarm sounds 4 times to indicate a CO Activation (>180PPM)
 1x 50 sec				An interconnected Alarm has been activated

## Hush Mode



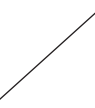

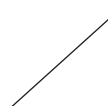







Green LED	Amber LED	Red LED	Sounder	Description
		 2 x 8 sec		<p>(i) During an Alarm activation if the 'Test/Hush' button is pressed the Alarm will enter Hush Mode* for 10 minutes before returning automatically to normal state.</p> <p>(ii) If the Red LED flashes twice every 8 seconds; the Alarm is in Hush mode and the sensor remains in activated state.</p>

\* Alarm cannot be Hushed if the CO concentration level is above 300ppm

## Memory Mode

Green LED	Amber LED	Red LED	Sounder	Description
 1x 50 sec		 2 x 50 sec		<p>(i) The Red LED flashes twice every 50 seconds to indicate a Heat Alarm has stored an activation in the Alarm's memory.</p> <p>(ii) The Memory function assists identification of Alarms that have been activated.</p>
 1x 50 sec		 4 x 50 sec		The Red LED flashes four times every 50 seconds to indicate a CO Gas Level activation in the Alarm's memory of ≤50PPM
 1x 50 sec		 6 x 50 sec		The Red LED flashes six times every 50 seconds to indicate a CO Gas Level activation in the Alarm's memory of ≤100PPM
 1x 50 sec		 8 x 50 sec		The Red LED flashes eight times every 50 seconds to indicate a CO Gas Level activation in the Alarm's memory of ≤180PPM
 1x 50 sec		 2 x 50 sec	 2x	The memory will automatically clear after 24 hours of the activation or press and hold the 'Test/Hush' button until the Red LED flashes twice and the Alarm sounds twice.

## Fault Mode

Green LED	Amber LED	Red LED	Sounder	Fault	Solution	Description
	 1 x 40 sec		 1 x 40 sec	Low Battery	Replace Alarm	If the battery is depleted but the Green Power LED is on, the Alarm will sound and the Amber LED flashes once every 40 seconds.
	 2 x 40 sec		 2 x 40 sec	Alarm Fault	Replace Alarm	The Alarm performs automatic tests. If the Alarm detects an internal error the Alarm will sound and the Amber LED flashes twice every 40 seconds.
	 3 x 40 sec		 3 x 40 sec	End of Life	Replace Alarm	After the Alarm passes the 10th year of installation it performs an End Of Life cycle indicating that the Alarm is recommended to be replaced. The Alarm will sound and the Amber LED flashes three times every 40 seconds

## Fault Hush Mode

Green LED	Amber LED	Red LED	Sounder	Description
				(i) The Amber LED flashes every 40 seconds to indicate the Alarm is in Fault Hush mode for 12 hours (ii) Low battery fault and End of life fault can be hushed more than once. Sensor fault can only be hushed once

### Product Safety

- This apparatus is designed to protect individuals from the acute effects of carbon monoxide exposure. It will not fully safeguard individuals with specific medical conditions. If in doubt consult a medical practitioner.
- Further guidance for the detection of Carbon Monoxide, detector selection, installation, use and maintenance can be found in
- BS EN 50292:2023.
- The installation of the Alarm should not be used as a substitute for proper installation, use and maintenance of fuel burning appliances including appropriate ventilation and exhaust systems.
- The table below shows the physiological effects of exposure to increasing concentration of CO:

Parts per Million (PPM) of CO	Time until Alarm
100	Headache, sickness, nausea, fatigue and flu-like symptoms
200	Dizziness and headache within 2 to 3 hours
400	Nausea, frontal headache ,drowsiness confusion and rapid heat rate. Risk to life after over 3 hours of exposure
800	Severe headaches, convulsions, vital organ failures. Death possible within 2-3 hours.

- If there is any doubt about the cause of an Alarm activation, assume it was caused by an actual fire or gas event.
- Read and retain all instructions.
- Test Alarms regularly.
- Ensure emergency escape plans are in place (Contact the local fire prevention officer for more information).
- Do not paint or cover the Alarm.
- Commonly occurring materials, vapours or gases e.g cleaning fluids, paints , cooking operations, etc., may affect the reliability of the Alarm in the short or long term
- Do not attempt to repair the Alarm.
- Do not dispose of the Alarm in a fire.
- Do not expose the Alarm to wet and/or humid conditions, indoor use only.
- The Alarm shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the Alarm.

- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine or the like.
- Any remote silencing feature shall only be used in line of sight of the Alarm
- Product operating temperature; -10°C~40°C, Humidity; ≤95%RH

### Product Limitations

- Espire Alarms have been designed and developed for fixed residential installation and use.
- Alarms should be installed by a competent person and sited according to relevant standards.
- The Alarm will not work if the sealed battery is depleted.
- The Alarm may not be heard for a number of reasons, for example; Alarm is positioned too far away from the occupants, occupants are impaired or high background noise. Interconnecting a number of Alarms improves the chances of hearing an Alarm.
- The Alarm may not detect every type of fire.
- Replace the Alarm by the date specified on the product or within 10 years of installation, whichever is first.

### Product Service

- If an Alarm fails to function as per the instructions contact the distributor.
- If advised to return the Alarm, ensure the base is disconnected as the Test/Hush button will still be active. Complete all information that has been requested and return in a securely packaged shipment.
- The Alarm is covered by a 5-year warranty, the warranty period starts from the date an authorised distributor purchases the Alarm.
- The warranty covers defects arising from manufacturing processes. The warranty does not cover damage accidental or otherwise, contamination and unauthorised repair.

### Product Installation

- Ensure the Alarm cover that protects the Alarm has been removed only when the site location has been cleaned thoroughly. The Alarm will not function correctly with the cover fitted.

### Product Specification

- Visit [www.espireuk.com](http://www.espireuk.com) for the latest product data.