

# INSTALLATION GUIDE

## CAVIUS MAINS POWERED SMOKE ALARM



Mains powered smoke alarm device  
Model no.: 2208

The smoke alarm is designed for private homes.

**PLEASE READ THE INSTALLATION GUIDE CAREFULLY BEFORE INSTALLATION AND RETAIN FOR FUTURE USE.**

### SAFETY INSTRUCTIONS:

The device comes with a 3V lithium battery. Batteries are to be handled with care and battery powered devices should be kept out of reach of children. Do not try to recharge or burn the batteries.

### TECHNICAL INFORMATION:

Powered by a non-replaceable 3V CR123 Lith-ium battery with 10-year life (included).

It can be RF interlinked with other CAVIUS Wireless Family alarms.

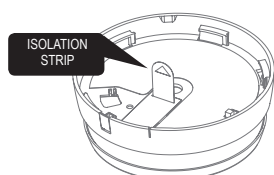
The maximum number of alarms that can be interlinked within a house group are 32. Please note: These must be alarms from the CAVIUS Wireless Alarm Family.

The distance between interlinked alarms depends on the house layout and they should always be tested after installation. It is not advised to install alarms with a separation of more than 10m. Diameter: 97mm. Height: 41mm (without mounting base) 52mm (with mounting base).



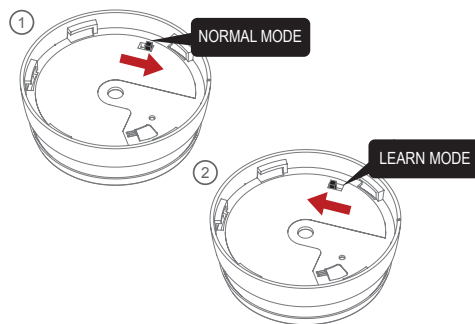
### 1. HOW TO SET UP AND CONNECT ALARMS:

Start by pulling out the battery isolation strip as shown.



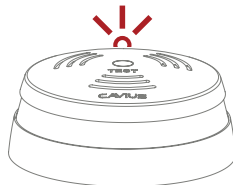
RF connection is done with the device powered with battery only. You do not have to connect the power supply. The product label must not be removed as it contains important information regarding the product.

All alarms to be connected in the house should be put into 'Learn Mode' by sliding the switch on the back of the alarm to the 'Learn Mode' position.



**Please note:** The learn switch placed on the back of the alarm can only be in learn position when the alarm is disassembled from the power supply unit. The learn switch will automatically switch to normal position when the alarm head is fitted to the power supply.

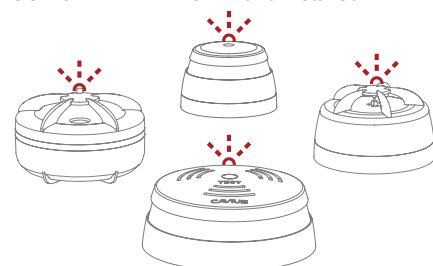
The red LED will light up to indicate that 'Learn Mode' has been selected.



Press and hold the test button at one alarm only, until it beeps and the LED flashes. This alarm will become the master and will start sending out a specific house code to the other alarms.



As the other alarms receive the specific house code, they will also flash the LED light. When the red LED light flashes on all alarms, they are connected and MUST BE SWITCHED OUT OF 'LEARN MODE' and installed.



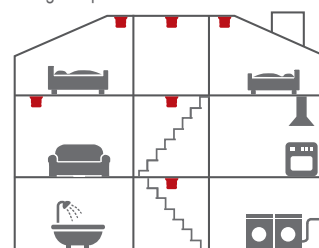
Label the original "Learn" alarm in order to easily add new CAVIUS Wireless Family alarms to the system.

### 2. THE BEST AREAS TO INSTALL THE SMOKE ALARM:

- Note the local country regulations regarding installation.
- Note the local regulations about information to your insurance company regarding installed smoke alarms.
- Install an alarm between possible fire sources and bedrooms as a minimum.
- Install alarms on each floor of the house, in hallways and landings.
- Alarms in each room such as bedrooms and living rooms.

Additional alarms increase the security.

Siting of Optical Smoke alarms



■ Optical

### 3. AREAS WHERE NOT TO INSTALL SMOKE ALARMS:

- In dusty rooms
- At the top of a high pointed ceiling, in ceiling corners, and within 50cm of a wall.
- In rooms where temperature goes outside the range +4° to 38°C or above 90% relative humidity not condensing.
- In kitchens, garages, laundries, or too close to fireplaces; areas where either dampness, gases or smoke could occur.

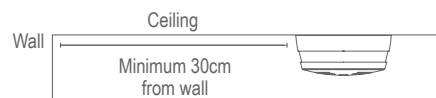
Place the alarm where it is reachable in order to test the alarm and for maintenance.

### 4. PLACEMENT:

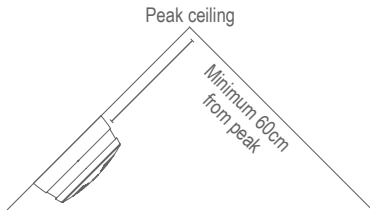
The smoke alarm is designed to be installed on a ceiling. With a minimum of one smoke alarm per floor and a maximum distance between smoke alarms of 10 meters.

#### For ceiling installation:

The smoke alarm should be a minimum of 30cm from the wall.



## For cathedral or peak ceiling:



### 5. INSTALLING THE SMOKE ALARM:

**NOTE: THIS ALARM NEEDS TO BE INSTALLED BY A PROFESSIONAL.**

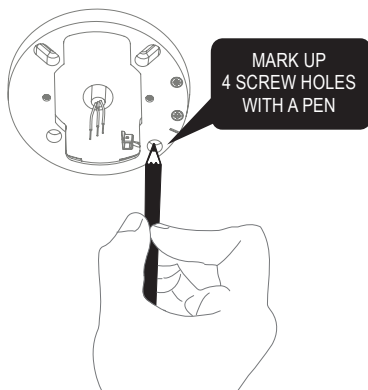
MAKE SURE ELECTRICITY IS SWITCHED OFF BEFORE STARTING THE INSTALLATION.

CAUTION: LIVE, NEUTRAL AND EARTH MUST BE CORRECTLY INSTALLED AND NOT MIXED UP.

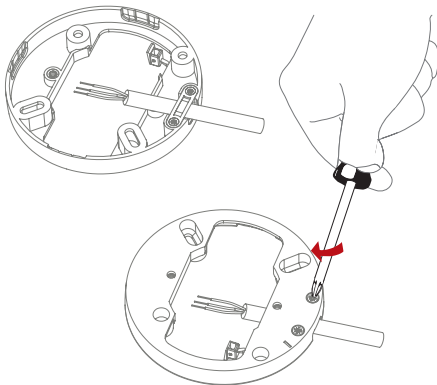
NOTE: The alarm is delivered in the packaging with a dust cover, installed to protect the alarm for exposure to excessive dust which could potentially damage or reduce the function of the alarm while the building is under construction. The dust cover must be removed after the building is fully cleaned.

#### OPTION 1: ALARM MOUNTED ON MOUNTING BASE OUT ON THE CEILING:

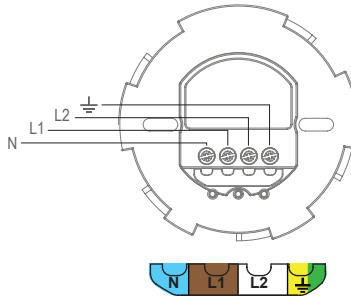
Use the mounting base ring to mark the screw holes on the ceiling.



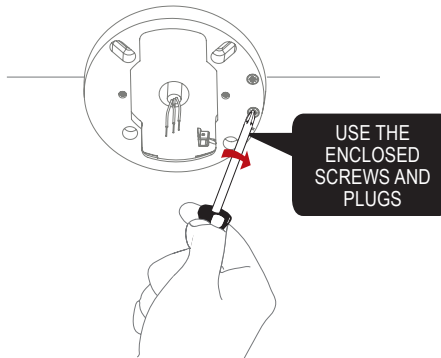
For surface wiring pass the feed wire through the mounting base cable holder and screw after termination.



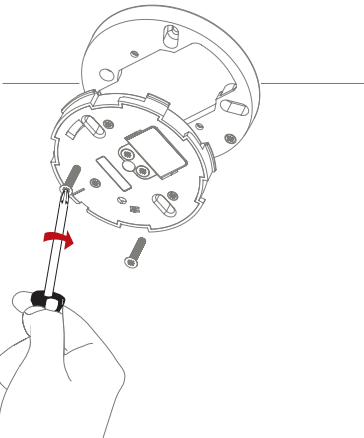
Connect the 3 wires to the power supply: Live feed (L1), neutral (N), earth ( $\perp$ ).



Screw the mounting base on the ceiling.



Screw the power supply on the mounting base.



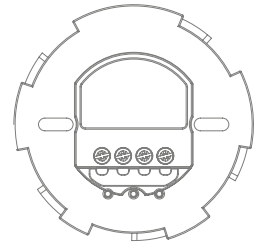
Once the mounting base with power supply is installed, attach the alarm by twisting clockwise until it clicks.



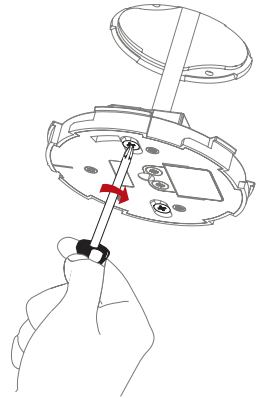
#### OPTION 2: ALARM MOUNTED ON TOP OF CONDUIT BOX:

Connect the 3 wires from the conduit box on the alarm power supply:

Live feed (L1), neutral (N), earth ( $\perp$ ).

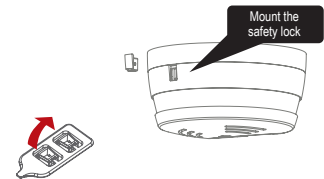


Screw the power supply on conduit box.



**NOTE:** Mounting base is not used when the alarm is installed on conduit box.

### 6. SAFETY LOCK:



### 7. TEST FUNCTION:

After installation, and at least once per quarter, test all of your alarms to ensure they are operating correctly and are within range of each other.

It is recommended to check visually every week if the LED flashes correctly (every 48sec.).

**Press the test button on any alarm for at least 10 seconds. This will send out a test signal from the alarm; all other connected alarms should receive the signal within a short time. The alarms will emit a short beep and the LED will flash every 8 seconds for 2 minutes.**

**NOTE:** Test function also transmits a weaker RF signal to ensure an optimal operation in normal conditions.

When the test signal is sent out, the alarms will respond in two ways:

1. A single beep every 8 seconds indicates that the alarms are connected and functioning.

2. Three short beeps every 8 seconds indicates a smoke sensor fault. The alarm should be cleaned by running the vacuum (on a low setting) around the smoke alarm chamber and tested again.

If required this indication can be stopped early on each alarm by a short press of the test button.

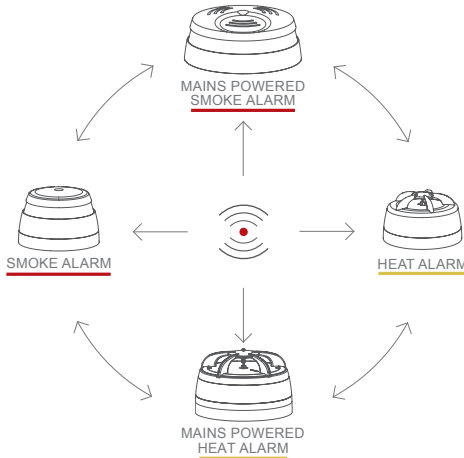
**TIP:** It is safe to cover the sound output holes with your finger or a cloth during the testing to minimize the sound level emitted.

If the problem continues, please visit [www.cavius.com](http://www.cavius.com) for any trouble shooting.


#### 8. ADD EXTRA DEVICE:

### WIRELESS

ALARM FAMILY



The mains powered smoke alarm can be used together with the alarms in the CAVIUS wireless family: Smoke, Heat & mains power alarms. All CAVIUS interconnected alarms within the

**WIRELESS ** can be added to the system as they run on same frequency and use the same data protocol. This means that the wireless system can consist of a combination of smoke, heat etc.

Place all alarms into 'Learn Mode' and repeat section 1.

Always test connection to all devices by repeating test function section 7 after adding devices.

#### 9. OTHER INFORMATION:

Do not paint the alarm.

Disposal: Please dispose properly at the end of life. This is electronic waste which should be recycled.

Complies to the Radio Equipment Directive 2014/53/EU

RF frequency: 868 MHz.

Maximum radio-frequency power transmitted: 20 dBm

Full DoC to 2014/53/EU (RED) can be downloaded at [www.cavius.com](http://www.cavius.com)

**WARNING: Please remove dust cover after installation. Smoke will not be able to reach the chamber while dust cover is in place.**

**WARNING:** All alarms should be assumed as due to actual fire and the dwelling should be evacuated immediately.

**WARNING:** To prevent injury, this apparatus must be permanently fixed to the ceiling/wall in accordance with the installation instructions.

**WARNING:** Batteries shall not be exposed to excessive heat such as shine, fire, or the like. Note the local country regulations regarding installation.

**⚠ WARNING:** This is a mains powered unit and can be hazardous to install. We recommend that the installation, together with any associated supply and interconnecting wiring, is only to be done by a professional in accordance with BS 7671:2018.

Hereby, Cavius declares that the radio equipment type 2208 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: [www.cavius.com](http://www.cavius.com)



DoP no.: 102.0022 EN 14804:2005 + AC:2008 DoP no.: 103.0012  
The CE and RED declaration of conformity and DoP can be downloaded from: <http://www.cavius.com>  
The paper version of the DoP is available free of charge upon request.

Carrier assumes no responsibility for any errors, which may appear in this manual. Furthermore, Carrier reserves the right to alter the hardware, software, and/or specifications detailed herein at any time without notice, and Carrier does not make any commitment to update the information contained herein.

Manufacturer: Carrier Fire & Security Danmark A/S, Ellekær 9A, 2. Th, DK-2730. Made in China.

