

# CAVIUS MAINS POWERED SMOKE ALARM



Mains powered smoke alarm device  
Commercial reference: 2201-003  
Developed by CAVIUS

The smoke alarm is designed for private homes.

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

## TECHNICAL INFORMATION

The smoke alarm is powered by mains power (110-230V AC), with a lithium back-up battery CR2. Please note that you should only use batteries from one of the following suppliers: DURACELL or HUIDERUI.

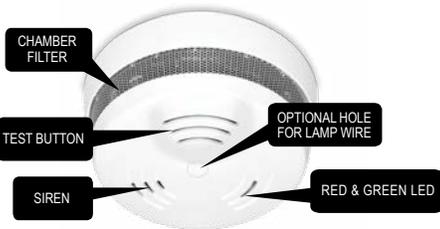
It can be RF interlinked with other 2201 alarms, and with other CAVIUS Wireless Family alarms. The maximum number of alarms that can be interlinked within a house group are 32.

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).

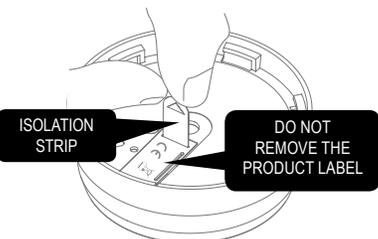
Interlinked by RF: 868 MHz  
Complies to standards: EN14604:2005 + AC:2008, EN300-220, EN50130-4:2011, EN60065, EN60950-1, RoHs, Reach.



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

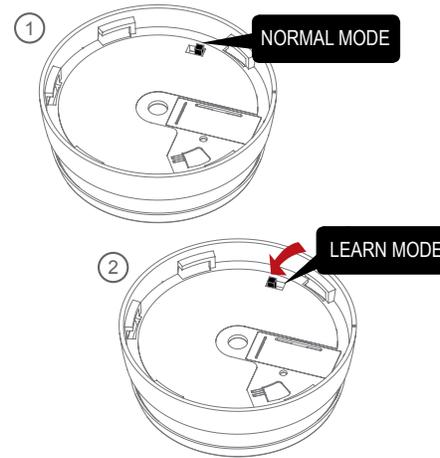
Start by pulling out the battery isolation strip in the battery compartment as shown.

**Please note:** 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.



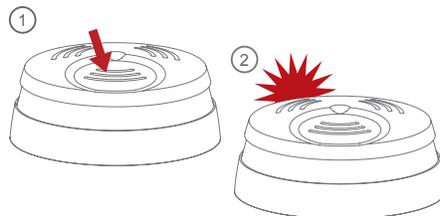
**Please note:** The learn switch placed on the back of the alarm can only be in learn position when the alarm is disassembled from the power supply unit. The learn switch will automatically switch to normal position when the alarm head is fitted to the power supply.

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

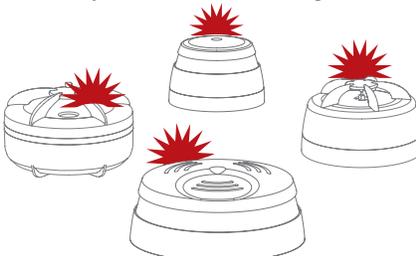


Do not remove the battery during 'Learn Mode' as this will interrupt the learn process.

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.

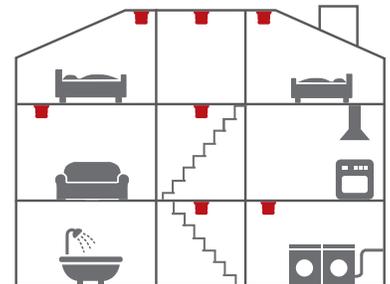


When all alarms flash the red LED, they are connected and can be switched out of 'Learn Mode' and installed.

### 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 stairways.
- Alarms in each room such as bedrooms and living rooms.

Additional alarms increase the security.



■ Minimum

### 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.

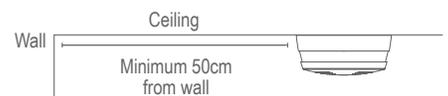
Place the alarm where it is reachable in order to test the alarm and for maintenance.

### 4. PLACEMENT:

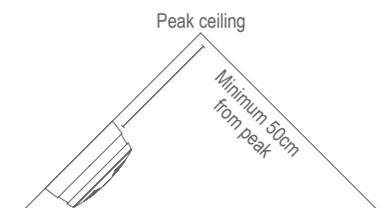
The smoke alarm is designed to be installed on a ceiling. With a minimum of one smoke alarm per floor and a maximum distance between smoke alarms of 10 meters.

#### For ceiling installation:

The smoke alarm should be a minimum of 50cm from the wall.



#### For cathedral or peak ceiling:



**5. INSTALLING THE SMOKE ALARM:**

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

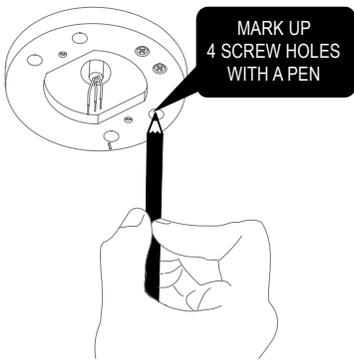
MAKE SURE ELECTRICITY IS SWITCHED OFF BEFORE STARTING THE INSTALLATION.

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

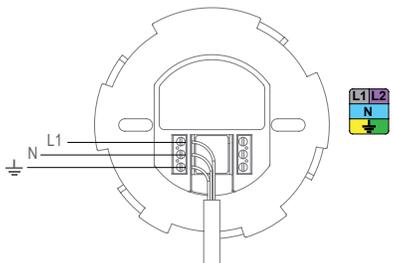
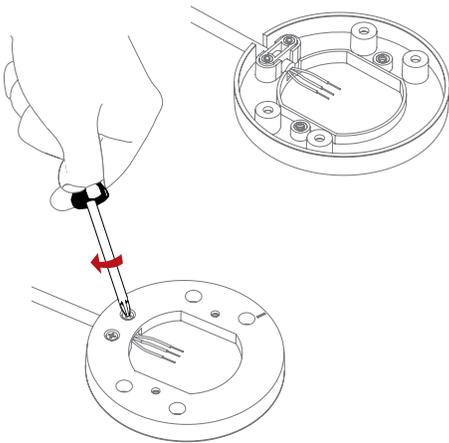
NOTE: The alarm is delivered in the packaging with a dust cover, installed to protect the alarm for exposure to excessive dust which could potentially damage or reduce the function of the alarm while the building is under construction. The dust cover must be removed after the building is fully cleaned.

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

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

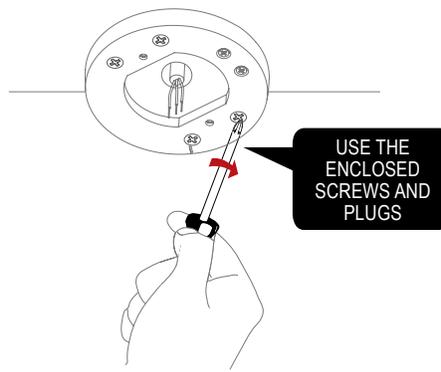


For surface wiring pass the feed wire through the mounting base cable holder and screw after termination.

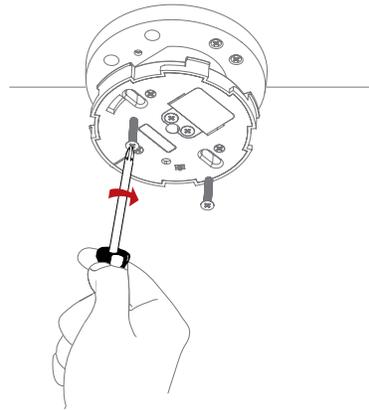


Connect the 3 wires to the power supply: Live feed (L1), neutral (N), Ground (⏏).

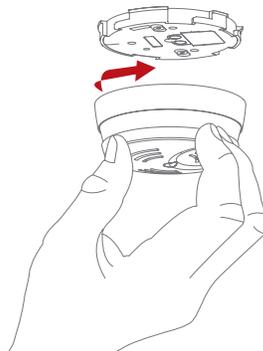
Screw the mounting base on the ceiling.



Screw the power supply on the mounting base.

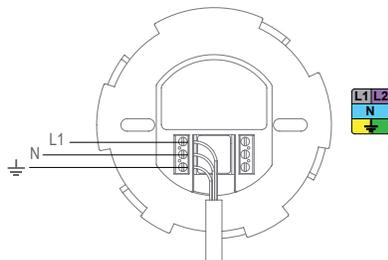


Once the mounting base with power supply is installed, attach the alarm by twisting clockwise until it clicks. If the battery is either missing or inserted incorrectly, the smoke alarm will not be able to click into the mounting base.

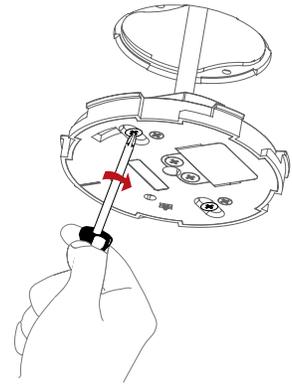


**OPTION 2: ALARM MOUNTED ON TOP OF CONDUIT BOX:**

Connect the 3 wires from the conduit box on the alarm power supply: Live feed (L1), neutral (N), Ground (⏏).



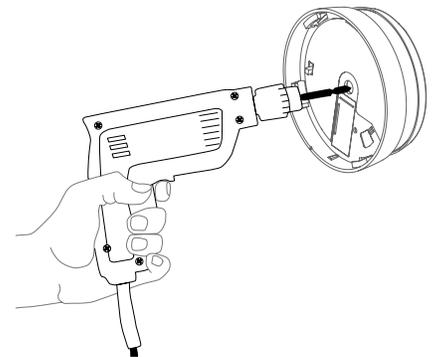
Screw the power supply on conduit box.



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

**OPTION 3: ALARM MOUNTED WITH LAMP SOCKET:**

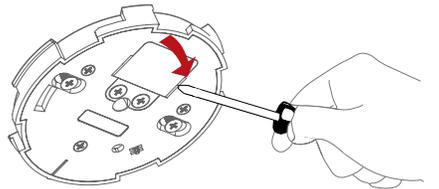
Drill through the middle of the alarm (Diam. 8mm)



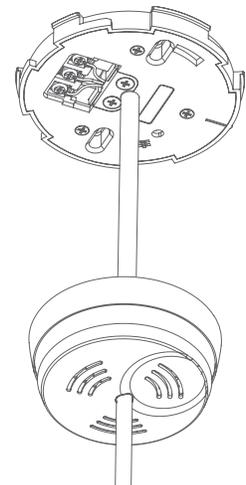
Install the power supply into the mounting base ring or use the conduit box as shown in option 1 & 2.

NOTE: Alarm supply must be different from the lamp supply which can be switched ON and OFF.

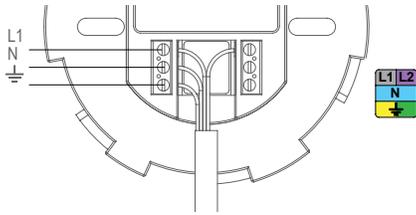
Remove the plastic cover to access to the power supply connector.



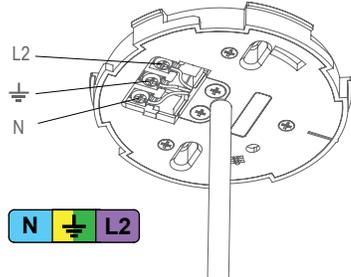
Pass the lamp wire through the smoke alarm.



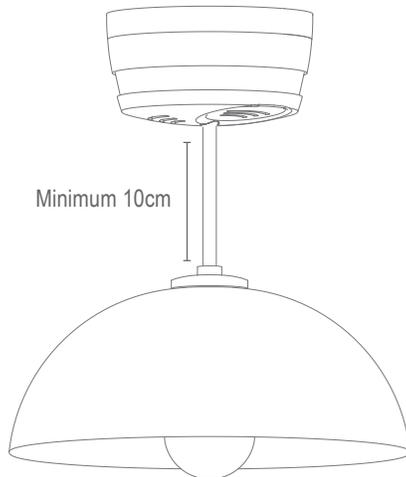
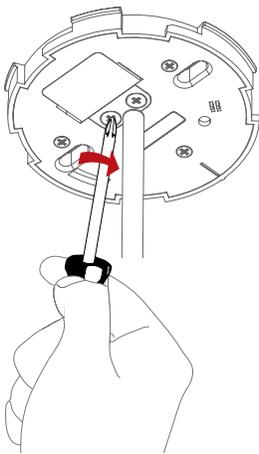
Connect the 4 wires to the power supply: Live feed (L1), neutral (N), Ground (⏏), lamp feed wire (L2).



Install the wires as shown.



Install the cableholder and replace the cover.



Light bulb: maximum 75W  
Lamp: maximum 2 kgs weight

**NOTE:** After putting the wires through the alarm, check if the test button can move free. If the hole is too small the test button cannot move.

### 6. 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.

### 7. NORMAL MODE:

In normal mode the LED will flash every 48 seconds to show correct operation. The green LED is on when the alarm is connected to mains power. It may take up to 1 minute to indicate that mains power has been connected.

### 8. ALARM MODE:

When the smoke is detected, the smoke alarm will go into 'Alarm Mode'. It will sound the alarm signal and the red LED will flash.

The smoke alarm will also transmit the alarm signal to the other connected alarms, which will also sound the alarm signal after a short delay.

The CAVIUS Wireless Family have two different alarm signals:

**Alarm signal 1** (--- --- ---) is life threatening alarms, like a smoke alarm.

**Alarm signal 2** (- - -) is a non life threatening alarm, like a flooding alarm:

Smoke alarm signal: --- --- ---

Heat alarm signal: --- --- ---

Flood alarm signal: - - -

CO alarm low level signal: - - -

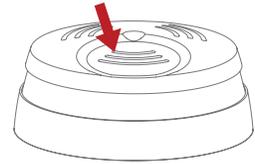
CO alarm high level signal: --- --- ---

Please note that only the originating alarm's red LED will flash, so it can be identified.

### 9. PAUSE/HUSH FUNCTION:

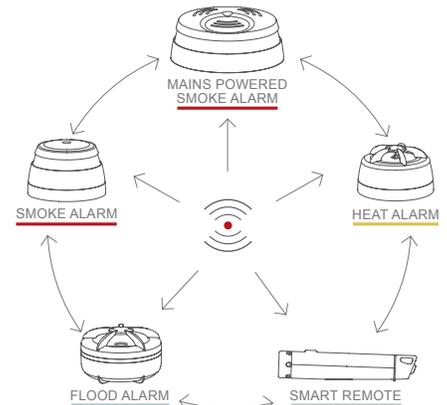
If the smoke alarms are to set into a false alarm by cooking, fireplace, etc. they can be paused for 10 minutes by pressing the test button on the originating smoke alarm only (indicated by the flashing LED).

The reason for this is that it is necessary to locate the source of the alarm before using the hush function. This is to make sure that it is not a life threatening situation.



### 10. 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, Flood, CO & mains power alarms. All CAVIUS interconnected alarms within the **WIRELESS** ALARM FAMILY can be added to the system as they run on the same frequency and use the same data protocol. This means that the wireless system can consist of a combination of smoke, heat, flood etc.

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

Always test connection to all devices by repeating test function section 6 after adding devices.

### 11. LOW BATTERY SIGNAL:

Your product has a battery back-up with a 1 year life in battery mode without mains power, and up to 10 years normal life with mains. However, we recommend to replace the battery every 5 years.

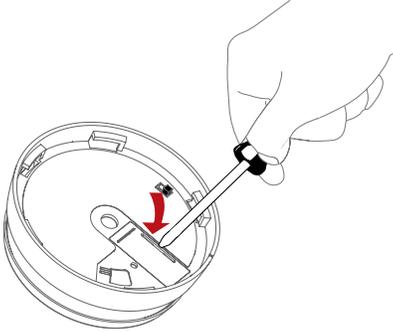
When the battery is starting its end of life, a short beep will sound out every 48 seconds for 30 days.

Only the alarm with the low battery will sound, no other connected alarms will sound. It is safe to change batteries in the alarms without going through the learn process again – they will not forget the codes during the battery change process.

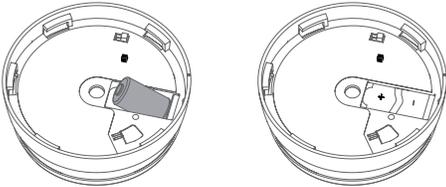
### 12. BATTERY REPLACEMENT:

To replace the battery, detach the smoke alarm from the power supply by twisting counterclockwise.

Remove the plastic cover to access the battery.

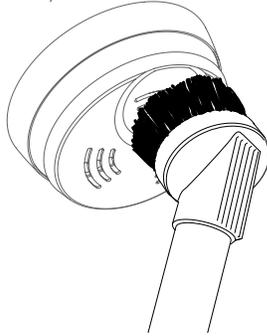


Replace the battery respecting the polarities. Attach the alarm on power supply by twisting clockwise until it clicks, and test the alarm.



### 13. MAINTENANCE & TROUBLE SHOOTING:

The smoke alarm should be vacuum cleaned once per quarter, to remove dust particles, and it can be wiped with a damp cloth. (Do not open the alarm).



**NOTE:** You can easily vacuum clean the smoke chamber through the dedicated openings in the top cover, and it's possible to test the alarms by pressing the cover at the same time.

High humidity condensing which can be resolved by drying the smoke alarm.

If the smoke alarm does not work when the test button is pushed, the probable cause is a power failure. **Always test the alarm after replacement of battery.**

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

### 14. OTHER INFORMATION:

Do not paint the alarm.

Disposal: For battery and product, please dispose properly at the end of life. This is electronic waste which should be recycled.

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

The CE mark affixed to this product confirms its compliance with the European Directives which apply to the product and, in particular, its compliance with the harmonized specifications of standard EN 14604 relating to Construction Products Regulation 305/2011.



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Developed by CAVIUS Aps Julsøvej 16, DK-8600  
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