

## MAINS POWERED SMOKE ALARM

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



CAVIUS Mains Powered Photoelectric Smoke Alarm

**Part Code:** 2901 CAVMPRK

**Model:** 2203-002

This smoke alarm is designed for private homes.

### TECHNICAL INFORMATION

The smoke alarm is powered by mains power (110-230V AC), with a lithium CR2 back-up battery.

It can be Radio Frequency (RF) interconnected with other 2203 CAVMP alarms and CAVIUS™ Wireless Family battery-operated alarms. The maximum number of alarms that can be interconnected within a house group are 32.

Our Mains Powered alarms can only interconnect via radio frequency technology. There are no terminals to interconnect together with cable.

**Please note:** These must be alarms from the CAVIUS™ Wireless Family range.

The distance between interconnected 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.

## WIRELESS ALARM FAMILY

**Diameter:** 97mm. Height: 41mm (without mounting base) 52mm (with mounting base).

**Radio Frequency:** 926.365 MHz

**Complies to standards:** AS3786:2014

**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 at an authorised e-waste facility.

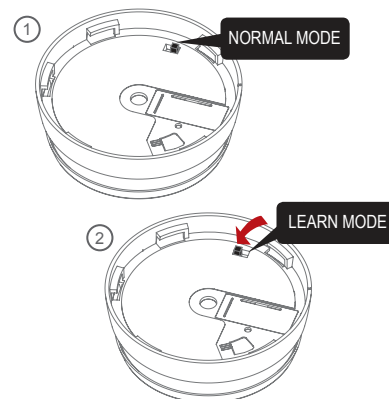
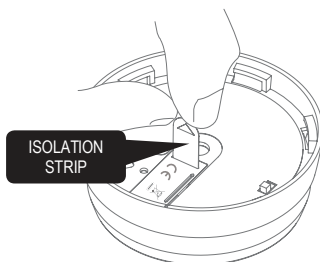
**WARNING:** Please remove dust cover after installation. Smoke will not be able to reach the chamber while the dust cover is in place.

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### 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 unit. 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.

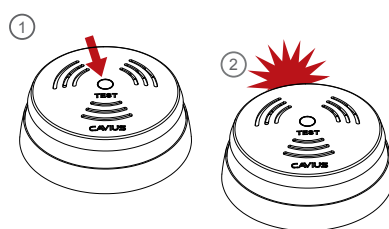
**Please note:** The learn switch placed on the back of the alarm can only be in learn position when the alarm is disassembled from the power supply unit. The learn switch will automatically switch to normal position when the alarm head is fitted to the power supply unit.

The red LED will light up to indicate that 'Learn

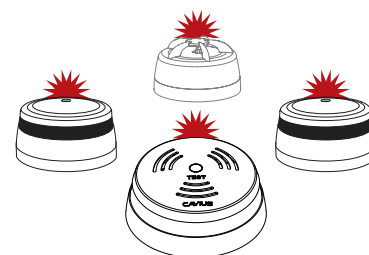


Mode' has been selected.

Do not remove the battery during 'Learn Mode' as this will interrupt the learn process. Press and hold the test button on 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.

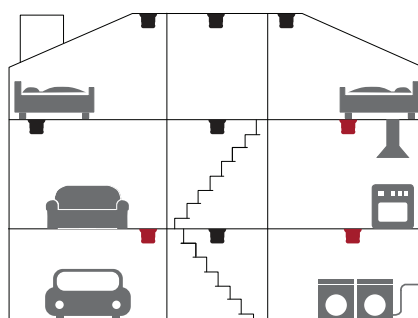


When all alarms flash the red LED, they are connected and can be switched out of 'Learn Mode' and installed.

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

- Note the local country regulations regarding installation and compliance.
- Note the local regulations and information for insurance company policy 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.



■ Smoke ■ Heat

### 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.

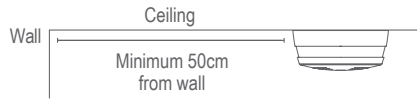
**4. PLACEMENT:**

The smoke alarm is designed to be installed on a ceiling.

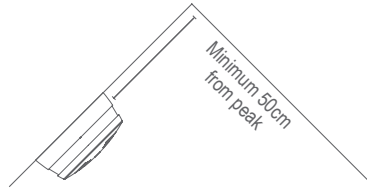
With a minimum of one smoke alarm per floor and a maximum distance between smoke alarms of 10 meters.

**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.**

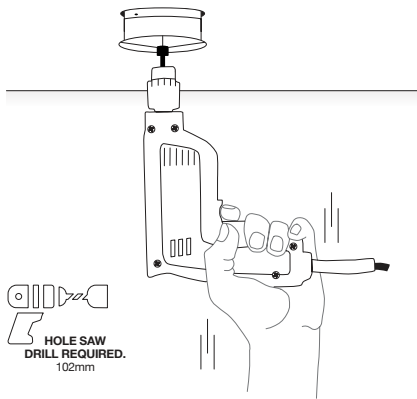
MAKE SURE ELECTRICITY IS SWITCHED OFF BEFORE STARTING THE INSTALLATION.

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

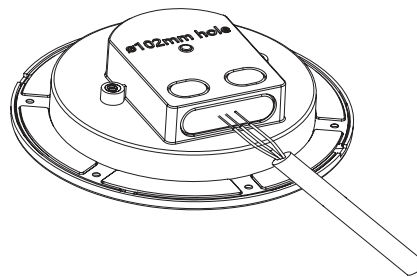
**NOTE:** The alarm is delivered in the packaging with a dust cover, installed to protect the alarm for exposure to excessive dust which could potentially damage or reduce the function of the alarm while the building is under construction. The dust cover must be removed after the building is fully cleaned.

**OPTION 1: ALARM RECESSED INTO THE CEILING:**

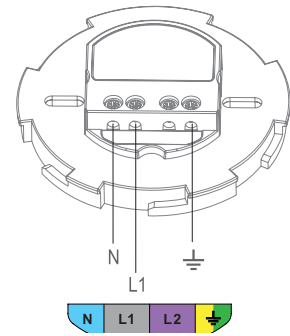
Using the hole saw drill (102mm) cut into the ceiling where recess kit and alarm will be located.



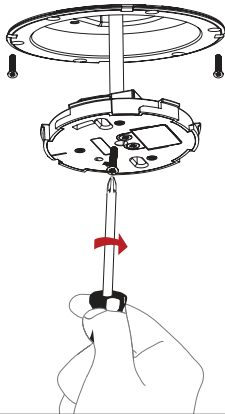
Punch out rectangle grommet and feed through the cable.



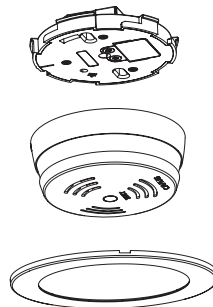
Connect the feed wire into the power supply unit and screw after termination.



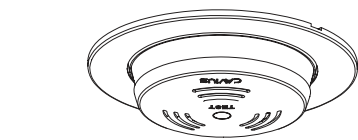
Screw recess kit base onto the ceiling. Then screw power supply unit inside the recess kit base.



Attach the alarm by twisting clockwise into the power supply unit until it clicks. If the battery is either missing or inserted incorrectly, the smoke alarm will not be able to click into the power supply unit.

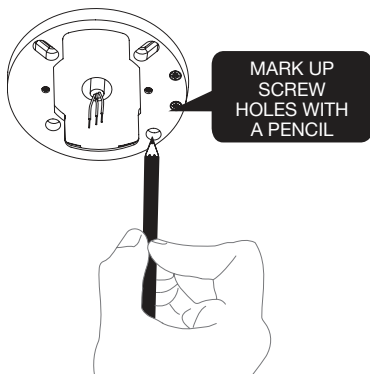


Click on the cover ring.

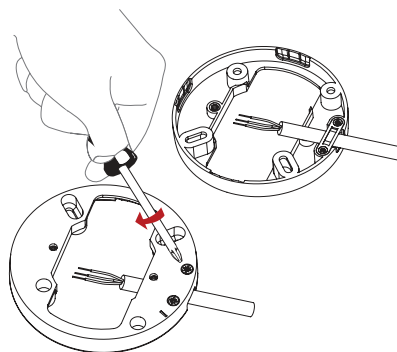


**OPTION 2: ALARM INSTALLED WITH STANDARD/FLUSH MOUNTING BASE.**

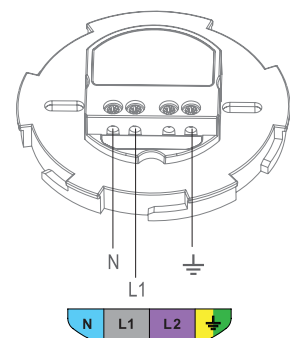
Use the mounting base ring to mark the screw holes on the ceiling.



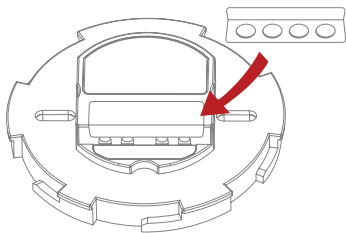
For surface wiring pass the feed wire through the mounting base cable holder and screw after termination.



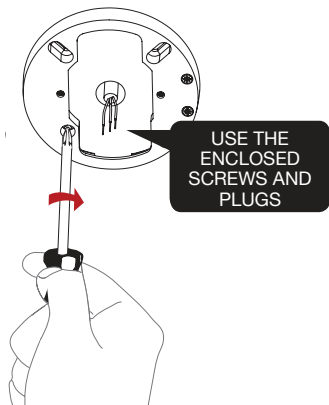
Connect the 3 wires to the power supply unit: Live feed (L1), neutral (N), Ground (⏚).



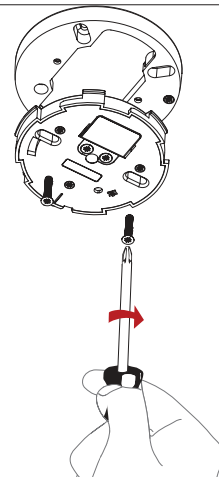
Ensure to place Terminal Cover over the terminal block.



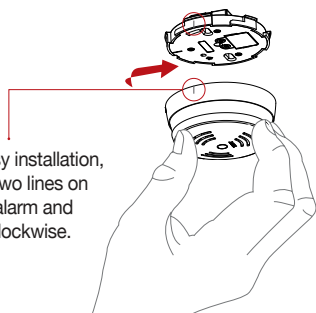
Screw the mounting base on the ceiling.



Screw the power supply unit on the mounting base.



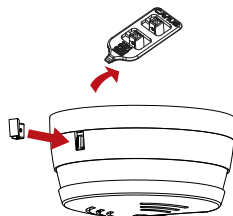
Once the mounting base with power supply unit is installed, attach the alarm by twisting clockwise until it clicks. If the battery is either missing or inserted incorrectly, the smoke alarm will not be able to click into the mounting base.



Detach the Safety Lock/Tamperproof pin from the tab and push into the Safety Lock/Tamperproof slot on the alarm base.

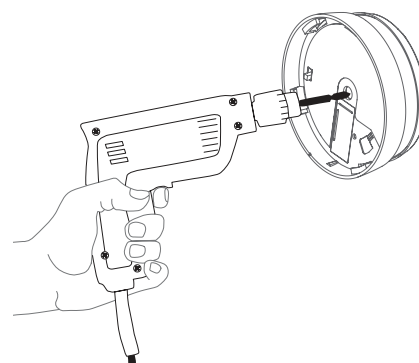
There is a spare pin provided in the event of losing one of the pins.

To remove the Safety Lock/Tamperproof pin from the alarm, use the pointed end of the tab to pop out.



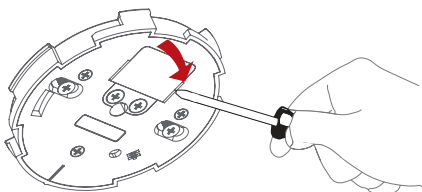
**OPTION 3: ALARM MOUNTED WITH LAMP SOCKET:**

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

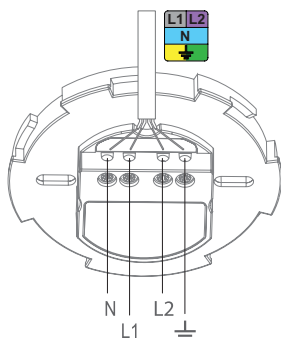


Install the power supply unit into the mounting base ring or use the conduit box as shown in option 1 & 2.

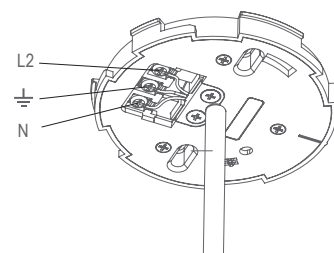
**NOTE:** Alarm supply must be different from the lamp supply which can be switched ON and OFF. Remove the plastic cover to access to the power supply unit connector.



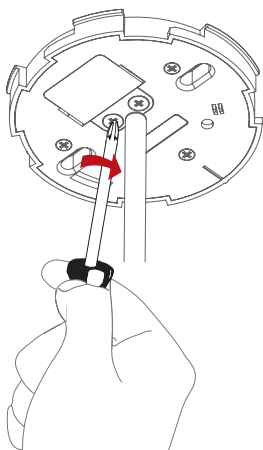
Connect the 4 wires to the power supply unit: Live feed (L1), neutral (N), Ground ( $\perp$ ), lamp feed wire (L2).



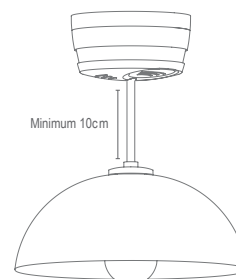
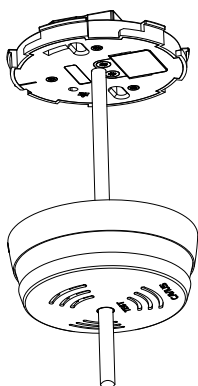
Install the wires as shown.



Install the cableholder and place back the cover.



Pass the lamp wire through the smoke alarm.



**NOTE:** After putting the wires through the alarm, check if the test button can move freely. If the hole is too small the test button cannot move and will not function correctly.

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

**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.).

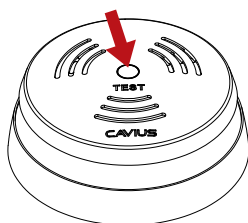
Press the test button on any alarm for at least 10 seconds. This will send out a test signal from the alarm; all other connected alarms should receive the signal within a short time. The alarms will emit a short beep and the LED will flash every 8 seconds for 2 minutes.

**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 in the provided vacuum slot, then tested again.

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



**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.

**9. PAUSE/HUSH FUNCTION:**

If the smoke alarms are set into a false alarm by cooking, fireplace, etc. they can be hushed 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:**

The mains powered smoke alarm can be used together with alarms in the CAVIUS™ Wireless Family range. All CAVIUS™ interconnected alarms within the Wireless Family 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.

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

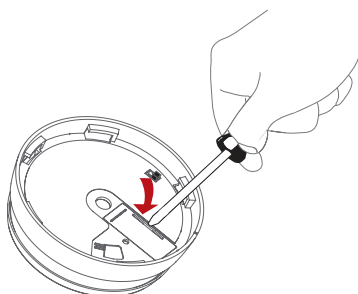
Only the alarm with the low battery will sound, no other connected alarms will sound. It is safe to change batteries in the alarms without going through the learn process again – they will not forget the codes during the battery change process.

**12. SINUSOIDAL POWER SOURCES:**

The smoke alarm cannot be used with square wave or non-sinusoidal power source.

**12. BATTERY REPLACEMENT:**

To replace the battery, detach the smoke alarm from the power supply unit by twisting counterclockwise. Remove the plastic cover to access the battery.



**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).



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www.cavius.com.au  
07 3556 1441

**WARRANTY:**

CAVIUS provides a 10-year warranty against defect in faulty material and workmanship from the date of purchase, on all devices.

The warranty applies to reasonable and normal conditions of use only. It does not include damage as a result of misuse, incorrect installation, accidental damage, neglect, unauthorised deconstruction or dismantling and any airborne or other contamination however this may have occurred.

If this product has an acknowledged defect it must be returned to the national CAVIUS Distributor at the purchasers cost with the proof of purchase.

If the product has become defective within the 10-year warranty, CAVIUS APS, Denmark will repair or replace the unit without charge and send back to the purchaser, via the national Distributor at the Distributors cost. The guarantee excludes labour costs, freight costs, service costs and any incidental and consequential damages. Do not attempt to repair or service this product as this will invalidate the warranty.

Under some unusual circumstances the presence of high levels of radio spectrum pollution may result in the batteries within the CAVIUS device not lasting as indicated in the product sheet. Radio spectrum pollution comprises transmissions inside the band allocated

for alarm devices such as the CAVIUS devices. Such transmissions may activate the receiver inside the devices for a longer time than is normal in standby.

This is not a specific problem for CAVIUS devices but for all similar radio linked technology powered by batteries. The limited warranty will not cover the battery life period indicated in the product sheet in these situations.

This warranty is in lieu of any other warranty either expressed or implied.

You can register your CAVIUS devices on our website.

**BATTERY LIFE:**

The calculation for the CR2 is based on the mains power supply on. The battery will last between 1-2 years if only powered by battery and with no mains power supply.



Alarm condition aural signal pattern according to ISO 8201.