

# SMOKE ALARM USER MANUAL

## MODEL NUMBER: EP-VC-240-1

Thank you for choosing this Smoke Alarm. Please take a few minutes to read the users manual thoroughly and familiarise yourself and your family with its operation, and save it for future reference.

This unit has been designed to meet the latest safety standards demanded in Australia and complies with the requirements of AS3786:2014.

<b>POWER:</b>	220-240V AC 50-60Hz with 1yr carbon zinc battery backup
<b>BATTERY LIFETIME:</b>	1 year
<b>OPERATION CURRENT:</b>	<100mA
<b>ALARM VOLUME:</b>	>85dB (A) at 3 meters
<b>ALARM SENSITIVITY:</b>	0.1-0.16dB/m
<b>HUSH/SILENCE TIME:</b>	approx. 8 minutes
<b>INTERCONNECTION:</b>	up to 40 Smoke Alarms, hardwired
<b>COMPLY WITH:</b>	AS3786: 2014
<b>SOUND PATTERN:</b>	ISO8201 (BI 0.5s - pause 0.5s - BI 0.5s - pause 0.5s - BI 0.5s - pause 1.5s, with the red LED flash, repeat this alarm pattern)
<b>WIRED INTERCONNECTION ALARM SOUND PATTERN:</b>	BI - BI - pause 1.2s, with the red LED flash, repeat this alarm pattern



## DESCRIPTION

The unit is a photoelectric 220-240V AC, with 9V DC battery backup Smoke Alarm. It is particularly sensitive for detecting visible micro-particles (associated with smouldering fires) and reacts faster than ionization Alarm/s.

An example of such smouldering fires is a cigarette burning on soft furnishings in the dwelling such as a sofa or bedding, (a common cause of devastating blazes).

Please note this device does not detect flames, heat, carbon monoxide or other hazardous gases. It has many advanced features and an extended operational life with the included battery.

Please add the RF module (EP-VC-RF-MOD) to this Smoke Alarm to enable interconnection with other RF Smoke Alarms from Emerald Planet.

### Australian State Based Smoke Alarm Regulations/Recommendations

#### NSW

[fire.nsw.gov.au/page.php?id=80](http://fire.nsw.gov.au/page.php?id=80)

#### QLD

[www.qfes.qld.gov.au/community-safety/smokealarms](http://www.qfes.qld.gov.au/community-safety/smokealarms)

#### SA

[mfs.sa.gov.au/site/community\\_safety/home\\_fire\\_and\\_life\\_safety\\_information\\_sheets\\_domestic/smoke\\_alarms\\_what\\_you\\_need\\_to\\_know.jsp](http://mfs.sa.gov.au/site/community_safety/home_fire_and_life_safety_information_sheets_domestic/smoke_alarms_what_you_need_to_know.jsp)

#### WA

[dfes.wa.gov.au/safetyinformation/fire/fireinthehome/FireintheHomeManualsGuidelines/DFES\\_FireintheHome-SmokeAlarm-Legislative-Requirements-LAWS.pdf](http://dfes.wa.gov.au/safetyinformation/fire/fireinthehome/FireintheHomeManualsGuidelines/DFES_FireintheHome-SmokeAlarm-Legislative-Requirements-LAWS.pdf)

#### TAS

[tfseducation.com.au/resources/publications](http://tfseducation.com.au/resources/publications)

#### ACT

[esa.act.gov.au/community-information/home-fire-safety/smoke-alarms/](http://esa.act.gov.au/community-information/home-fire-safety/smoke-alarms/)

#### NT

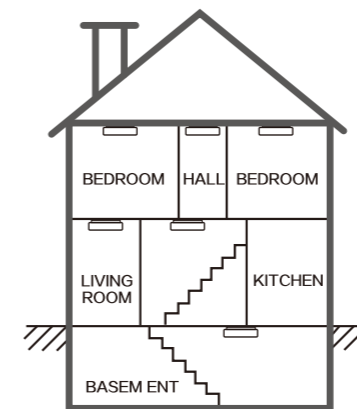
<https://nt.gov.au/emergency/community-safety/fire-safety-at-home/smoke-alarms>

## INSTALLATION POSITIONING ADVICE

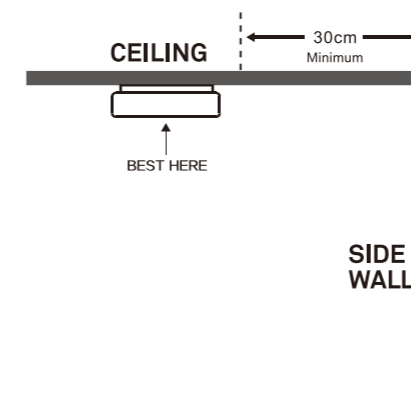
When mounting an alarm on the ceiling, locate it a minimum of 30cm from the side wall (see Diagram 2).

- Put Smoke Alarm/s at both ends of a bedroom hallway or large room if larger than 10m long.
- Install Smoke Alarm/s on slopped, peaked or cathedral ceilings between 50cm and 250cm from the highest point of the ceiling (See Diagram 3).

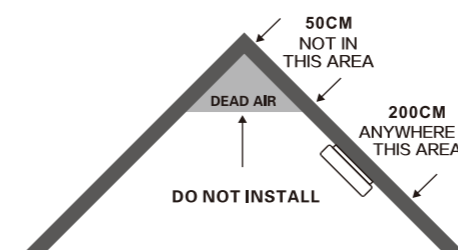
**DIAGRAM 1**  
MULTIPLE FLOOR PLAN



**DIAGRAM 2**  
CEILING PLACEMENT



**DIAGRAM 3**  
PEAK CEILING PLACEMENT



## LOCATIONS TO AVOID

- 1: Don't place Smoke Alarm/s in bathrooms, Kitchens, Garages or other rooms where the Alarm may be triggered by steam, condensation and normal smoke/heat from appliances.
- 2: In areas with high humidity, like bathrooms or areas near dishwashers or washing machines, install at least 3m away from these areas.
- 3: Near air returns or heating and cooling supply vents, install at least 1m away from these areas. The air could blow smoke away from the detector, interrupting its alarm.
- 4: In rooms where temperature may fall below 0°C or rise above 40 °C (due to nuisance/false alarm activation).
- 5: In extremely dusty, dirty, or insect infested areas where particles may interfere/obstruct with Alarm operation.
- 6: Away from air conditioning or ventilation grilles/louvres.

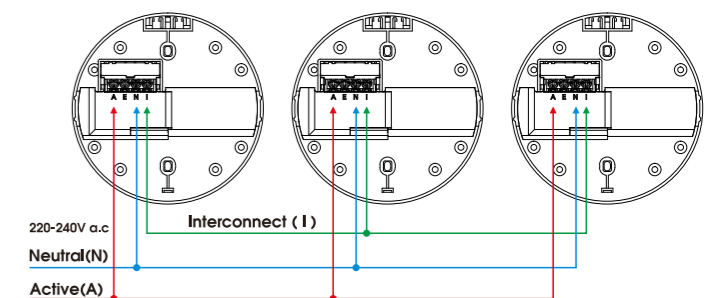
## INTERCONNECTING SMOKE ALARM/S

- 1: This Smoke Alarm is capable of providing wired interconnection function.
- 2: Interconnecting Smoke Alarms can be linked wired together so that if one alarm is activated then all Smoke Alarms which are linked in the circuit are also sounded.
- 3: A 9V signal is applied to the interconnect terminals between all wired interconnected Smoke Alarms.
- 4: The maximum wiring length is 150m between Smoke Alarms.

### Wiring Diagram for Wired Interconnection

#### TERMINAL

- A:** Active
- E:** Earth Loop
- N:** Neutral
- I-connect:** Interconnect



## INSTALLATION – WIRED CONNECTION

- 1: Strip the Live, Neutral and Interconnect (if used ) wires back to the strip length shown at Diagram 4. Connect the wires to the correct terminals on the base (shown at Diagram 5) and ensure the terminal screws are fully tightened. Check all wires for continuity and correct termination and ensure that the interconnect wires have not been cross connected to either live or neutral terminations.
- 2: Ensure that the terminal cover is closed to avoid contact with the live terminals as shown at Diagram 6.
- 3: Screw the mounting base onto the ceiling using the appropriate fasteners.
- 4: Clip the Smoke Alarm on to the base.

**Note:** The Smoke Alarm base will only close with a battery installed. Do not attempt to close without a battery installed.

- 5: Turn on the mains power and check that the Smoke Alarm

#### Green and Red LED's function:

- a) The Green LED should illuminate to show mains power present.
- b) The Red LED will pulse every 40 seconds to indicate correct operation and that the backup battery proves serviceable.

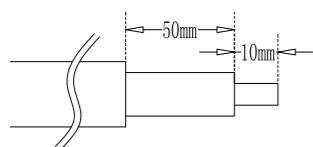
6: Press the Test / Hush button to check that the Smoke Alarm works.

Installation is not complete until both LEDs are functioning correctly and the alarm has been checked for correct operation. Wiring must be installed in compliance with local regulations.

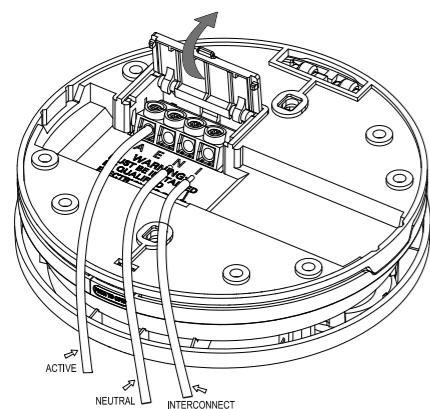
Use a minimum of 1.0 mm<sup>2</sup> 250 V insulated wire for all wiring, including interconnecting wiring.

Terminal Provisions: Active, Neutral, Loop and Interconnect terminals, each accommodates 2 X 1.5 mm<sup>2</sup>.

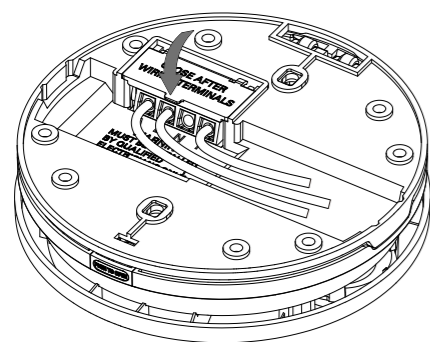
**DIAGRAM 4**



**DIAGRAM 5**



**DIAGRAM 6**



**CAUTION: Risk of injury and equipment damage/ malfunction**

- 1: All interconnected Smoke Alarms must be supplied from the same circuit.
- 2: A common Neutral must be used for the Interconnect to operate.
- 3: DO NOT connect the Interconnect wire to Active or Neutral.
- 4: A maximum of 40 Smoke Alarms can be installed on one circuit (wired interconnection only).

**Failure to follow these instructions may result in injury and equipment damage / malfunction.**

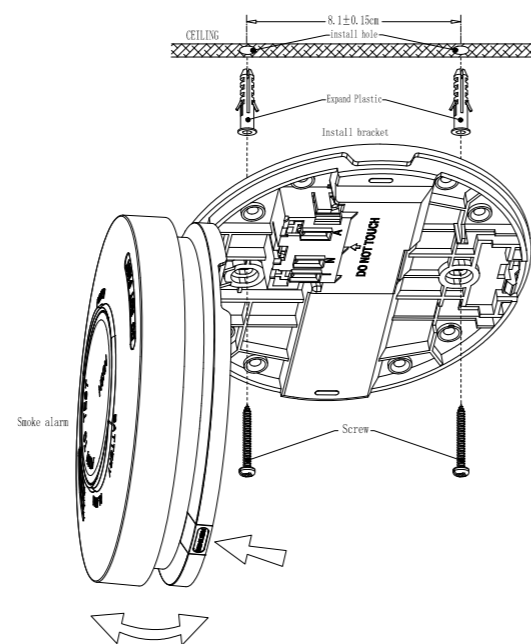
**WARNING:** Electrical shock hazard. Disconnect the AC mains at the fuse box or circuit breaker powering the Alarm before following the cleaning instructions.

**INSTALLATION**

**WARNING:** Smoke Alarm/s must be installed by a licensed electrician.

This Smoke Alarm is not suitable for wall (vertical) mounting. Alarm will not attach to mounting bracket unless battery is installed correctly.

**DIAGRAM 7**  
**Installation Sketch Map**



**OPERATION AND TESTING**

**TESTING:**

Test by pushing the test button on the cover. This will sound the alarm if the electronic circuitry, alarm, and battery are working. Other interconnection alarms will send alarm signals.

If no alarm sounds, the unit has a defective battery, or another fault.

**DO NOT** use an open flame to test your alarm, you could damage the alarm or ignite combustible materials and start a structure fire.

**NOTE:** Weekly testing is required.

**Normal Condition**

The green LED light is always on and the red LED should flash every 40 seconds to show that the alarm is active.

**Alarm Condition**

When the Alarm senses products of combustion and sounds the audible alarm, the red LED will flash one flash/second. The flashing LED and pulsating alarm will continue until the air is cleared.

**Low Power Pack Condition**

**IMPORTANT:** Your Smoke Alarm/s requires the power pack (9V DC battery) to have sufficient capacity of power to operate correctly.

Should your Smoke Alarm/s enter a low power pack condition, the unit will emit an audible chirp once every 40 seconds. When this occurs, you must replace the battery immediately. Your Smoke Alarm/s will continue to warn of this low power pack condition for approximately 30 days, however, failure to change the battery after this time would mean your Smoke Alarm/s may have insufficient power to alert you in a real fire situation. After the battery is replaced, the low power warning chirp will stop.

**Fault indication**

The alarm chirp occurs every 40 seconds.

**Alarm silence**

**DANGER:** If your Smoke Alarm emits the full alarm signal and you are not testing the unit, the Smoke Alarm is warning you of a potentially dangerous situation that requires your immediate attention. Only use the alarm silence function after making sure that there is no ongoing fire emergency situation. Do not block the vents on the alarm or disable the Smoke Alarm in any way, as this will remove your protection. Smoke Alarm can sometimes react to cooking fumes or other non emergency situations. In the event of a known false alarm your Smoke Alarm can be temporarily silenced by pressing the test button. Your alarm will automatically return to full sensitivity within 8 minutes.

**NOTE:**

- 1: Press and release the silence button, the alarm sound will stop.
- 2: Your alarm will silence and enter into a reduced sensitivity reset cycle for approximately 8 minutes.
- 3: During the reduced sensitivity reset cycle, the red LED will flash once every 8 seconds.
- 4: Your alarm will automatically return to full sensitivity on completion of the reset cycle and the red LED will revert to flashing once every 40 seconds.

**DANGER:** Never ignore any alarm. Ignoring the alarm may result in injury or death. If your Smoke Alarm activates and alarms and you are not absolutely certain of the source of the smoke, get everyone out of the house immediately.

**BATTERY REPLACEMENT**

The secondary backup power for the Smoke Alarm is supplied by a 9V lithium battery. The battery should last at least 10 years under normal operating conditions. (without wireless interconnection)

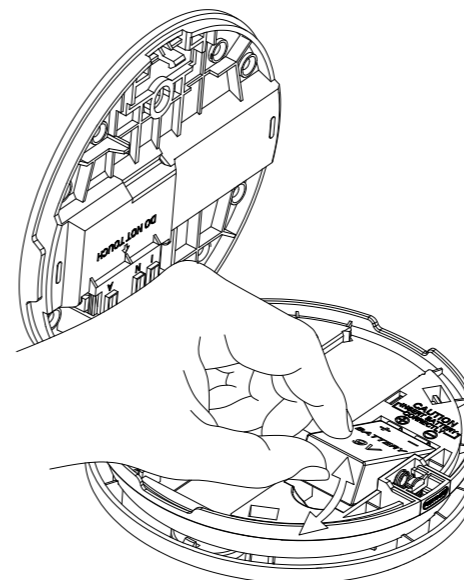
**CAUTION:** Test the Smoke Alarm for correct operation using the test facility whenever the battery is replaced.

Recommended use the following 9 V batteries for Smoke Alarm battery replacement.

Carbon Zinc battery: Pairdeer 6F22.

**CAUTION:** Ensure inserting the antenna first, then press the other side into the slot vertically.

**DIAGRAM 8**  
**Battery removed finger slot**



**WHAT TO DO IN CASE OF A FIRE IN YOUR HOME**

- 1: Do not panic, and stay calm.
- 2: Alert small children in the home.
- 3: Leave immediately by your escape plan. Every second counts, so don't waste time getting dressed or picking up valuables.
- 4: When leaving, don't open any inside doors without first feeling its surface. If hot, or if you see smoke seeping through the cracks don't open that door! Instead, use your alternate exit. If the inside of the door is cool, place your shoulder against it, open it slightly and be ready to slam it shut if heat and smoke rush in.
- 5: If the air is smoky, stay close to the floor. Breathe shallowly through a cloth, wet if possible.
- 6: Once outside, go to your selected meeting place and make sure everyone is there.
- 7: Call the fire department from your neighbor's home -not from yours!
- 8: Don't return to your home until the fire officials say that it is all right to do so.

**ROUTINE MAINTENANCE**

- 1: In addition to weekly testing, the alarm requires cleaning at least once a month to remove dust, dirt, or debris.
- 2: Use a vacuum cleaner with the soft brush, vacuum all sides and covers of Smoke Alarm device.
- 3: This alarm has a low battery monitor which will cause the alarm to "chirp" approx every 40 seconds and the red LED flash once at the same time, for a minimum of thirty days when the battery gets low.
- 4: If there is a defective battery or other failures, you can refer to "Trouble shooting" for solution, if there are still failures during warranty, you can return it to your retailer.

**IMPORTANT:** Do not attempt to remove the cover to clean inside. This will affect warranty.

**Cautions:**

- 1: Photoelectric smoke detectors can reduce the likelihood of a disaster, but they cannot guarantee a 100% safety.
- 2: To ensure your maximum security, please install all smoke detectors exactly according to this manual.
- 3: Keep the detectors clean. Do not allow dust to accumulate and test them at least once a week.
- 4: If they are not working properly, replacing them immediately.

**WARRANTY INFORMATION**

Emerald Alarms Pty Ltd warrants this Smoke Alarm to the original purchaser.

Emerald Alarms Pty Ltd warrants each new Smoke Alarm is free from defects in material and workmanship under normal use and service for a period of 7 years from the date of purchase. This warranty does not cover damage resulting from accident, misuse or abuse or lack of reasonable care of the product.

In no case shall Emerald Alarms Pty Ltd be liable for any incidental or consequential damages for breach of this or any other warranty express or implied whatsoever. Faulty product can be mailed to the following address with a detailed explanation of problem.

**Emerald Alarms Pty Ltd**

ABN 50 632 601 453

2/29 Mitchell Rd Brookvale NSW 2100

## TROUBLE SHOOTING

Problem	Method of disposal
Smoke Alarm does not sound when tested.	<ol style="list-style-type: none"><li>1. Remove Smoke Alarm from bracket, then check the battery is properly connected to battery connector.</li><li>2. If there are still failures during warranty, you can return it to your retailer.</li><li>3. If the unit is out of warranty, please replace with a new alarm.</li><li>4. Make sure the Green LED is on. If not, please ask a licensed electrician to solve it.</li></ol>
The alarm chirp occurs every about approx 40 seconds, at the same time as the red LED flash once.	<p>If the battery is in low battery status, please replace battery, and refer to "BATTERY REPLACEMENT" section.</p>
Smoke Alarm chirp occurs every approx 40 seconds (alarm goes in- to fault mode).	<ol style="list-style-type: none"><li>1. Clean Smoke Alarm. Please refer to the "maintenance and cleaning" section.</li><li>2. Purchase and change to another Smoke Alarm if the problem still exists.</li></ol>
Smoke Alarm sounds unwanted alarms intermittently or when residents are cooking, taking showers, etc.	<ol style="list-style-type: none"><li>1. Press test button to pause alarm.</li><li>2. Clean Smoke Alarm device. Please refer to the "maintenance and cleaning" section.</li><li>3. Move Smoke Alarm device to new location and press test button.</li></ol>
The alarm sounds different from it is used to. It starts and stops.	<ol style="list-style-type: none"><li>1. Clean Smoke Alarm device. Please refer to the "maintenance and cleaning" section.</li><li>2. If there are still failures during warranty, you can return it to your retailer.</li><li>3. If the unit is out of warranty, please replace it with another new alarm.</li></ol>

