

## SMOKE ALARM USER MANUAL

### MODEL NUMBER: EP-HYB-240-10

Thank you for choosing Emerald Alarms.

This leaflet contains important information on the correct installation and operation of your smoke alarm.

Please read all the information before commencing installation and retain 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 3V battery backup (non-replaceable battery)
<b>OPERATION CURRENT:</b>	<80mA
<b>BATTERY LIFETIME:</b>	10 years
<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 24 smoke alarm/s, 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>WIRELESS INTERCONNECTION ALARM SOUND PATTERN:</b>	BI - BI - pause 0.5s, BI - BI - pause 0.5s, BI - BI - pause 1.5s, without the red LED flash, repeat this alarm pattern

## DESCRIPTION

The unit is a photoelectric 220~240V AC, with 3V DC battery back-up smoke alarm device. It is particularly sensitive for detecting visible micro-particles (associated with smoldering fires) and reacts faster than ionization alarms.

An example of such smoldering fires is a cigarette burning in a couch or bedding a common cause of devastating blazes.

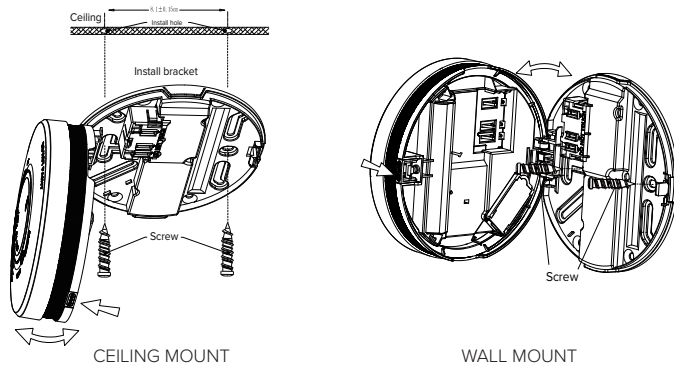
Please note this device does not detect flames, heat, carbon monoxide or other hazardous gases. It has many advanced features and an extended operational life with the included battery.

To enable interconnection with other Emerald RF smoke alarms add an RF module (EP-HYB-RF-MOD).

## ASSEMBLY

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

1. Smoke alarm/s must be installed by a licensed electrician and securely attached to the ceiling in accordance with the installation instructions.
2. All interconnected smoke alarms must be supplied from the same circuit.
3. A common neutral must be used for the interconnect to operate.
4. DO NOT connect the interconnect wire to active or neutral.
5. A maximum of 24 smoke alarms can be installed on one circuit (wired interconnection only).



## LOCATIONS TO AVOID

1. Don't place alarms 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 the 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/louvers.

## LOCATION OF SMOKE ALARMS

For maximum protection smoke alarms should be installed in every room (except areas described in the previous section 'Locations to Avoid') to ensure people in the home will be able to hear and respond to the alarm. At the very least install one smoke alarm on every floor.

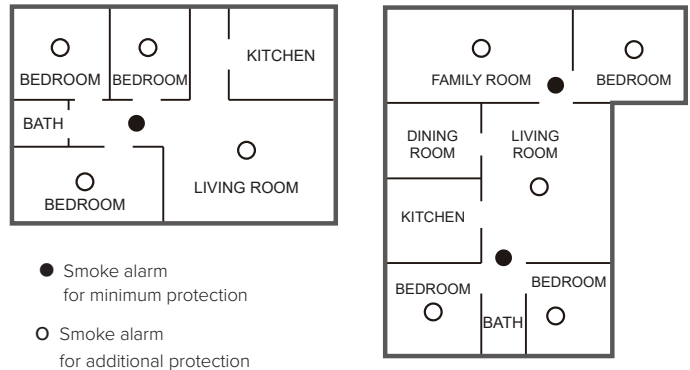
If you suspect a household member may not hear this smoke alarm i.e. outdoor or indoor noise, sound sleepers, drug or alcohol usage, the hard of hearing, etc install and maintain a specialty smoke alarm device.

**NOTE:** In Australia each state has a different legislation when it comes to smoke alarms. Please visit the relevant authority in your state for specific legislation requirements.

## TYPICAL SINGLE-STORY HOME

For maximum protection, a smoke alarm should be installed on the ceiling of each bedroom, living area, and hallway. Where a hallway is more than 10 meters long install a smoke alarm at each end. If there is a basement install a smoke alarm on the basement ceiling at the bottom of the stairwell.

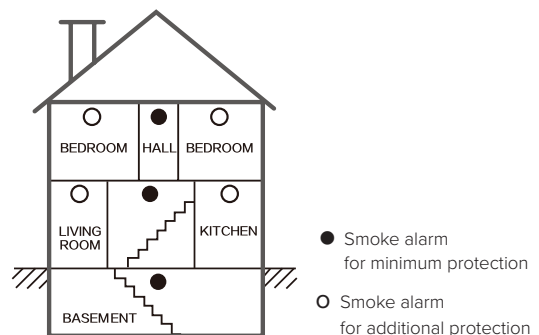
Additionally, a smoke alarm should be installed in the hallway between the living areas (incl. kitchen) and bedrooms. Place it as near to the living areas as possible and ensure the smoke alarm is audible when bedrooms are occupied.



## TYPICAL MULTI-STORY OR SPLIT LEVEL HOME

For maximum protection, a smoke alarm should be installed on the ceiling of each bedroom, living area, and hallway. Where a hallway is more than 10 meters long install a smoke alarm at each end. Also install a smoke alarm above each staircase.

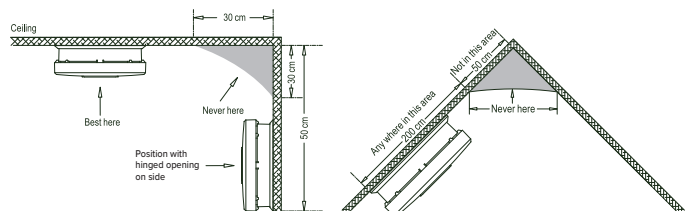
For minimum protection, a smoke alarm should be installed above each staircase, including the basement.



## POSITION OF SMOKE ALARMS

Smoke will spread horizontally after rising to the ceiling, so it's advisable to install the smoke alarm in the centre of the ceiling where possible. Avoid areas where there is no circulation.

- When mounting an alarm on the ceiling, position it a minimum of 30cm from the side wall.
- When mounting an alarm on the wall, position it a minimum of 30cm from the corner and a maximum of 50cm below the ceiling. Position hinged opening on the side - not top or bottom.
- Install smoke alarm/s on slopped, peaked or cathedral ceilings between 50cm and 250cm from the highest point of the ceiling.



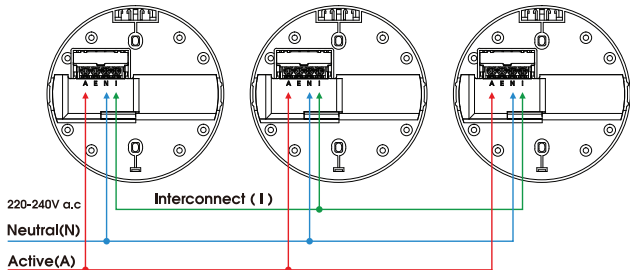
## INTERCONNECTING SMOKE ALARMS

This smoke alarm offers a wired interconnection function. Interconnecting smoke alarms can be linked together so that if one alarm is activated all alarms linked on the circuit also sound.

NOTE: A 3V signal is applied to all interconnected wired smoke alarms. The maximum wiring length is 150m between smoke alarms.

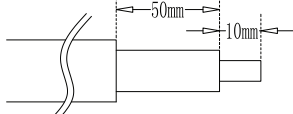
### INTERCONNECTION WIRING DIAGRAM

(A) Active (E) Earth Loop (N) Neutral (I) Interconnect



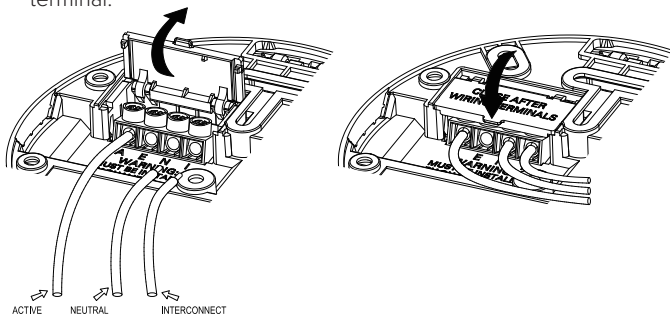
## WIRE CONNECTION

1. Strip the active, neutral and interconnect (if used) wires back to the strip length.



2. Connect the wires to the correct terminals on the base and ensure terminal screws are fully tightened. Check all wires are secure and not cross connected to either active or neutral terminations.

Ensure the terminal cover is closed to avoid contact with the active terminal.



3. Screw the mounting base onto the ceiling using the supplied fittings.
4. Clip the smoke alarm onto the base.
5. Turn on the mains power and check the smoke alarm's green and red LED. Green LED should illuminate to indicate mains power is on. Red LED will pulse every 48 seconds indicating the alarm is working with the mains power supplied. The yellow LED will flash once every 48 seconds indicating the alarm is powered by battery power supply. In case of a low battery the yellow LED will flash once every 48 seconds with an audible chirp.
6. Press the Test/Hush button to check the smoke alarm is working.

**Warning:** 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 1.0mm<sup>2</sup> 250V insulated wire for all wiring, including interconnecting wiring.

Terminal Provisions: active, neutral, loop and interconnect terminals, each accommodates 2x1.5mm<sup>2</sup>.

## OPERATION AND TESTING

Smoke alarms are an important safety device in the home. It is important to check them regularly to ensure they are operating correctly.

### Regular Mode

When there is no smoke present the green LED light remains on and the red LED should flash every 48 seconds to show the alarm is active.

### Alarm Mode

When the alarm detects smoke, the red LED will flash once per second and the alarm will sound loudly. The flashing LED and alarm will continue until the air is cleared.

### Fault Mode

The alarm will generate a 'chirp' every 48 seconds without any light flashes indicating a fault.

## TESTING YOUR SMOKE ALARM

It is recommended that you test your smoke alarm once a week to ensure the smoke alarm is working correctly. Test by pushing the test button on the cover. The alarm will sound if the alarm, electronic circuitry and battery are working. If no alarm sounds, the smoke alarm has a defective battery, or another fault.

**Warning:** Do not use an open flame to test your alarm. You could damage the alarm or ignite combustible materials and start a structure fire.

## LOW BATTERY POWER

Should your smoke alarm have a low battery the unit will emit an audible 'chirp' once every 48 seconds and the yellow LED light flashes once at the same time. When this occurs you must replace the battery immediately. Your smoke alarm will continue to warn of this low battery for at least 30 days. However, failure to change the battery after this time would mean your smoke alarm may have insufficient power to alert you in a real fire situation.

**Warning:** Your smoke alarm requires the 3V DC battery to have sufficient capacity of power to operate correctly.

## SILENCE ALARM

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 alarms 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**.

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 every 8 seconds indicating it is running in silent mode.
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 48 seconds.

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

## ROUTINE MAINTENANCE

Like other electrical accessories in the home, smoke alarms require maintenance to ensure efficient and effective operation. Proper maintenance can also reduce the likelihood of false alarms.

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

1. In addition to weekly testing, the alarm requires cleaning at least once a month to remove dust, dirt, or debris.
2. Using a vacuum cleaner with the soft brush vacuum all sides and cover of smoke alarm device.

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

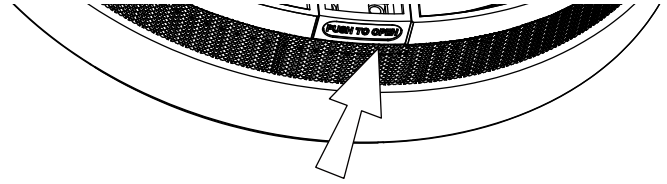
**Warning:**

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 replace them immediately.

## HOW TO DEACTIVATE THE SMOKE ALARM

The best way to deactivate the alarm is to open the alarm and follow the instructions on the yellow label.

To open the alarm press the "Push to Open" button on the side of the alarm.



There are two methods to deactivate the Hybrid Smoke Alarm depending on the manufacture date.

(a) Press TEST 6 times within 3 seconds. The LED light will stay on for 4 seconds, then start flashing. Whilst the alarm is flashing press TEST again 6 times. The smoke alarm will chirp when the alarm has been deactivated.

(b) Press TEST 6 times within 3 seconds. The smoke alarm will chirp when the alarm has been deactivated.

There will be no alarm functions while in this status. You must reactivate the alarm before use.

**Warning:** Deactivating this alarm should only be performed if you need to dispose of the smoke alarm or if you need to cease a nuisance alarm which is caused by a failure of the smoke alarm.

## 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.

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2022.09