

Installation and User Manual

BESMOKEY4

Photoelectric Smoke Alarm
with Hinged Base Plate, 4 Terminals



Features

- Photoelectric.
- Suitable for ceiling or wall mounting.
- 240V~ Mains powered, 50Hz, 80mA.
- Approved to AS3786:2014.
- Active Fire listed
- 9V Replaceable battery back-up.
- Single station and / or inter-connectable up to 24 units.
- Low Battery indication.
- 4 terminal.
- Button for Test and Hush control.
- Hinged base/mounting plate for easy battery changing.
- Green a.c. mains LED.
- Red flashing battery indicator.
- Warning Siren 85dBA.
- Active Fire listed.
- Sound pattern: ISO 8201
- Anti-tamper feature.
- Large terminals in easy to install base plate.

Before installing smoke alarm

Remove the product and packaging from the box and ensure the installer has read through the instructions thoroughly and they are understood before commencing installation. The installations performance and overall safety relies on the correct procedures being followed for both connection and positioning of the units.

Installation planning

• Recommended location of smoke alarms

Standard guidelines should be followed and locations should be planned for optimum performance when installing the smoke alarms. The Building Code of Australia and regional Government Legislations provide direction.

- For optimal performance, alarms should be mounted as close to the centre of the rooms as practical and on the ceiling for residential applications (see diagram 2).
- Smoke alarms should be located in the vicinity of sleeping areas, bedrooms and along the path to the exit as the sleeping quarters are usually further from building exits.
- Smoke alarms should be mounted near each end of hallways longer than 9 meters.
- Smoke detectors on ceiling must be installed at least 300mm away from walls or corners (see diagram 3).
- Where it is necessary to mount smoke alarms on a wall, use the inside wall of the room and position them between 300 and 500mm from the ceiling. (See diagram 3).

- The alarm should be at least 500mm away from the apex of any angled ceiling surface and no greater than 1500mm (see diagram 3).
 - Alarms should be located in every room where electrical appliances are used.
- **Multi Story**
 - Alarms should be installed on every floor level.
 - Stairwells can act like chimneys as smoke can rise through them, so additional alarms should be located in these areas (see diagram 1).

Diagram 1

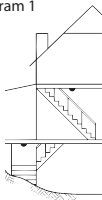
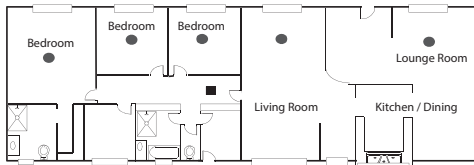


Diagram 2 - Suggest alarm location



• Mobile Homes

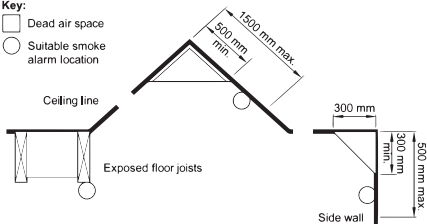
- For modern mobile homes or caravans with efficient insulation, install smoke alarms as recommended, refer 'Recommended location of smoke alarms'.
- For older and mobile homes and caravans that are not well insulated on external surfaces compared to current standards, external temperatures can vary to extreme heat or cold. In these cases the smoke detector should be mounted on an inside partition between 300 and 500mm from the ceiling surface. This is to overcome the problem where the temperature conditions on external surfaces may create a thermal barrier where smoke may not reach the ceiling.
- If unsure of the insulation in the mobile home it is recommended to install the alarm on an inside wall panel, and for minimum protection install at least one alarm near bedrooms.

Note: for smoke alarm use in mobile homes it is recommended to test them before each excursion and at least once a week during use, particularly if travelling on rough roads.

Diagram 3

Key:

- Dead air space
- Suitable smoke alarm location



DEAD AIRSPACE AND PROPER MOUNTING OF SMOKE ALARMS ON SIDE WALLS

• **Locations to avoid:**

- Air-conditioner ducts or appliance outlets that create airflow such as heaters where combustion heat particles rise and spread horizontally.
- Avoid locating the smoke alarms within 1 meter as it can cause nuisance triggering or smoke particles may be blown away from alarm.
- Avoid installation in kitchen areas as nuisance triggering can occur from cooking fumes, heat or smoke particles rising.
- Avoid installation in damp areas or extremely humid locations where relative humidity may reach 90%.
- Avoid installing in areas where there are large temperature variations such as 5 to 45 degrees as performance may vary in extreme conditions and battery life may be reduced.
- Avoid installing alarms in areas that are considered "dead air space" where smoke will unlikely reach the alarm (see diagram 3).
- It is recommended not to locate your alarm in the garage - products of combustion that are present when you start your vehicle may cause nuisance triggering.
- Do not locate your alarm less than 500mm from the peak of an "A" frame type ceiling (see diagram 3).
- Avoid dusty areas or areas where insects may infest the unit as it may cause nuisance triggering or premature failure.
- Avoid installation in close proximity to other electrical equipment or fluorescent lights as electromagnetic interference may cause nuisance triggering.

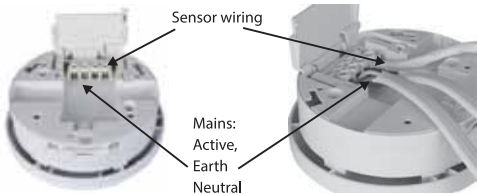
Installation

- Only wire BESMOKEY4 alarm to 240V~ 50Hz Sine wave current supply.
- There are four terminals in the supply terminal block, marked A,E,N and S. It is important that the alarm be wired correctly to ensure correct operation. Incorrect wiring to the Smoke Alarm will damage the unit and void the warranty.
- All wiring must be carried out by a licenced electrician and in accordance with AS/NZS3000 wiring rules with minimum cable size of 1mm².
- Ensure the power is switched off, strip Active, Earth and Neutral to the length shown and insert in correct terminals indicated on the base.



- Tighten the terminal screws fully.
- If interconnected then insert the signal cable into the “S” terminal and tighten screws (see diagram 4).
- Clip the terminal cover closed to prevent accidental contact with live parts.
- Fix the smoke alarm to the ceiling or mounting surface using the plugs and screws provided.
- If the unit is replacing a larger diameter alarm, then the BESMOKEY4SK skirt can be clipped to the baseplate to cover larger unpainted regions on the ceiling. (See ‘Skirt Instruction’ on back page).
- Clip the hinge tongue into the base plate (if it has been removed) and install the battery (refer replacing the battery section) then pivot the alarm closed until the clip clicks on the base plate assembly.

Diagram 4



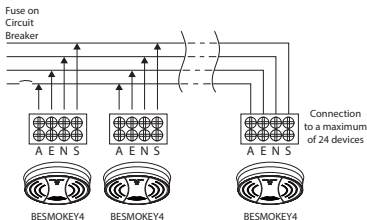
• Operation and Testing

- Prior to turning on mains to smoke alarm, remove the dust cover, and ensure the back-up battery is correctly fitted and is fully charged over 8.0 Volts, then close the alarm to the base assembly engaging the clip.
- Switch on power and check the green light on alarm cover is illuminated. It should be lit when mains power is connected and indicates the unit is correctly connected to the mounting base. The smoke alarm will be correctly working when the green light is on and the red light flashes periodically to show the battery is functioning.
- Press the Test/Hush button to confirm the alarm functions correctly.
- If the alarm “chirps” several times press the test button to check the battery condition is OK.
- If the alarm continues to “chirp” and the battery is in good condition and fitted correctly, remove the alarm and return it to the supplier for replacement.

• **Interconnection of smoke alarms**

- Up to 24 units of smoke alarms may be interconnected. Due to “noise” from electromagnetic interference, more connections should not be undertaken.
- Do not connect the S interconnect wire to any device, except the S interconnect terminal of smoke alarm. Otherwise, smoke alarm will be damaged.
- Do not connect AC power wires to S interconnect terminal. These will damage smoke alarms.
- A total maximum of 250 meters of cable can be used in interconnecting smoke alarms.
- All “A,E,N” sub-circuit conductors including the signal conductor “S” must be a minimum size of 1mm² with 250V rated insulation (see diagram 5).
- Interconnected Smoke Alarms must be connected to the same sub-circuit for “A&N”
- Do not use any wire that could later be confused with the normal house wires for the interconnect wire. For example, green/yellow earth wire.
- Smoke alarms should be interconnected only within the limits of a single family dwelling. Do not interconnect alarms between different living units as excessive nuisance triggering may result. Other occupants may not be aware that smoke alarms are being tested or that it is a nuisance alarm caused by cooking etc.
- This Smoke Alarm can only interconnect with Trader BESMOKEY4. Interconnection with other brands or models may cause damage or result in a shock or fire risk and void warranty.

Diagram 5



• Hush/Silence Feature

- The Smoke alarm contains a hush/silence feature within the button labelled HUSH/TEST on the external surface of the alarm.
- If cooking particles or dust have triggered a false alarm the unit can be temporarily silenced for 8-10 minutes by pressing the HUSH button for 3 seconds or longer while the particles clear. If smoke continues in the atmosphere then alarm will recommence sounding.

• Replacing the back-up battery

- Smoke alarms should have their back up batteries replaced regularly and at least every 12 months or if the low battery signal starts signalling.
- Use only the following 9 volt batteries for smoke alarm replacement. Alkaline Type: ENERGIZER 522; DURACELL MN1604, MX1604; Carbon Zinc Type: Gold Peak 1604E. These batteries can be purchased at your local retail outlet or supermarket.
- Open the smoke alarm by pressing the "Push to Open" button (see diagram 6).

• Replacing the back-up battery (cont.)

- The body of the smoke alarm will pivot down on the hinge to reveal the battery chamber.
- Remove the 9V d.c. battery from the battery recess.
- Replace the battery with a new equivalent and follow the steps below.
- When installing the new battery ensure the spring loaded battery tag is correctly pushed down in the chamber by the battery otherwise the body will not close on the base plate and the alarm will not function (see diagram 6).
- Close the alarm and latch the clip back in place.
- The alarm should show the green LED lit and the Red LED flashing periodically.
- Press the TEST function to ensure the alarm is working correctly.

Diagram 6



Press the push button and the alarm will open and swing down on the hinge plate. The contacts may hold it closed so the alarm may need some assistance to open.



Access to the battery chamber



Troubleshooting

Function	LED status	Recommendation
Normal	Green ON	Green LED indicates a.c. mains power is present.
Normal	Red Flashing every 30 seconds.	Red LED flashes every 30 seconds if normal. The smoke alarm performs a self-test every 30 seconds for the battery and electronics.
Alarm Mode	Red light flashing every 0.5 seconds. Smoke alarm is activated.	Repeats 3 long beeps as per ISO8201 that the alarm has activated and is in alarm mode.
Alarm Mode	Red light is OFF. Smoke alarm is activated.	Smoke alarm is in full alarm mode, repeat 3 long beeps (ISO8201). Other interconnected units may have activated the alarm. Also check other connected devices.
Hush Mode	Green Light ON. Red light every 8 seconds and no chirp.	The "HUSH" feature has the capability of temporarily desensitizing the alarm circuit for approximately 8 minutes.
Low battery	Green ON, flashing red light every 30 seconds.	Smoke alarm chirps every 30 seconds. May indicate low battery status. Replace battery.

Develop and Escape Plan

- Familiarise everyone with the sound of the smoke alarm and train them to exit the building when they hear the noise.
- Establish a safe place outside of the home where the occupants can gather in case of a fire such as a driveway near the road.

- Have a family meeting to discuss the escape plan so that everyone knows what to do as people may be located in different parts of the dwelling.
- Practice the drill regularly several times a year as it will help familiarise people for the time there is an emergency and ensure children are trained what to do.
- It is recommended to make a floor plan and show windows and exits as well as multiple escape routes in case there is a fire in different parts of the dwelling. It is also recommended to plan the escape from second story windows where a rope or chain ladder may be needed as well as an easy way to open them if needed to escape.

What to do if alarm sounds

- The most important thing is not to panic.
- Leave immediately by heading towards the exits identified in your escape plan, don't waste time collecting valuables or getting dressed. Alert small children who may need assistance.
- Check the pathway ahead of you for fire or smoke and be careful to check the heat of internal doors before opening as there may be a fire on the other side. If the pathway is blocked by smoke or fire, use an alternative escape path.
- To prevent being overcome by smoke, stay low to the ground, if the air is filled with smoke, breathe slowly, covering mouth and nose with a cloth.
- Once outside and in the planned safe meeting place, make sure everyone is present.
- Call the fire brigade from your neighbour's house or mobile, **not your own home phone.**
- Don't enter back into your house until fire officials say it is OK.

False Alarms

- Photoelectric type smoke alarms are less prone to false alarm near kitchen areas than older smoke alarms.
- If the alarm does sound, check for fire first. If a fire is discovered, escape quickly as per the previous section.
- If no fire is present, check to see if the reasons are dust, insects, cooking particles or excessive steam that may have caused the alarm.

Maintenance and repairs

- There are no serviceable parts within BESMOKEY4 alarm that should be replaced by the user.
- BESMOKEY4 alarm has an expected service life of 10 years under normal conditions.
- Trader recommends that BESMOKEY4 alarm is replaced 10 years after its installation date.
- Disconnecting BESMOKEY4 alarm from the mounting base and/or removing the 9V battery will render this smoke alarm inactive.

Warning: Insulation Test

- Under no circumstances must an insulation resistance test be carried out on a circuit to which a smoke alarm is fitted.
- The test could cause irreparable damage to the internal circuitry of the smoke alarm and make it inoperative.
- The warranty would be void under such circumstances.

Note: Weekly testing is recommended!

Warranty and Liability

If invoice / receipt is presented, GSME will repair or replace the product (at the option of GSME) due to any manufacturing defect, at the cost of GSME (excluding any labour costs relating to removal or re-installation of product, and transport costs) assuming that the product is not altered after the date of purchase, or if it fails to operate due to improper maintenance.

- To the extent permitted by law, the liability of GSME arising from the sale or under the terms of this limited warranty shall not in any case exceed the cost of replacement and subject to this clause. In no case shall GSME be liable for consequential loss or damages resulting from the failure of the product or breach of this, or: Any other warranty, express or implied, loss or damage caused by failure to abide by the instructions supplied in the leaflets.
- To the extent permitted by law, GSME makes no warranty, expressed or implied, written respect to the consumer replaceable battery if any. A product with non-serviceable built-in battery is covered under warranty of the product.
- This warranty is provided in addition to other rights and remedies you have under law:

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. What constitutes a major failure is set out in the Australian Consumer Law.

- To make a claim under warranty, take the product (with a proof of purchase) to the store where you purchased the product or contact GSME via Email: service@gsme.com.au with details, proof of purchase or expense claim in writing.

Please retain this warranty section and complete the details below. When you claim Warranty for the product please present this section together with the faulty product.

Model: _____ Serial Number: _____

Date Of Purchase/ Installation: _____ Invoice No:

Installed By:

Owner's Details:

This smoke alarm has been tested and complies to AS3786:2014

Skirt Instruction

When replacing larger diameter smoke alarms with the BESMOKEY4, the BESMOKEY4SK skirt can be clipped onto the base plate before wiring or installation to the ceiling, to provide a clean solution to cover any dissimilar paint marks.

The tabs can be pushed in place and rotated to lock the alarm in place with the skirt.



GSM Electrical (Australia) Pty Ltd
Level 2 142-144 Fullarton Road
Rose Park SA 5067

www.gsme.com.au
Phone: 1300 301 838
Fax: 1300 301 778

