TRADER®
100 Years of Gerard Electrical Tradition

BEAR™

# BESMOKEY10V2

## Smoke Alarm, Photoelectric

### 220-240V AC Lithium Battery Wireless Ready



Thank you for purchasing our smoke alarm. This instruction contains important information on the correct installation and operation of your smoke alarm. Read this instruction fully before attempting installation and retain them for future reference.

**AS 3786:2023**

| **Specifications:** | |
|---|---|
| **Main Power Source** | 220-240 V AC/50 Hz |
| **Secondary Power Source** | DC 3V battery |
| **AC Operating Current** | <20mA |
| **Interconnecting** | Max. 20 alarms (wired 150m maximum) |
| **Operating Temperature** | 0 °C to 40 °C |
| **Ambient Humidity** | ≤ 95% RH (non-condensing) |
| **Alarm Sensitivity** | Band 1 |
| **Alarm Volume** | ≥ 85dB(A) @ 3m |
| **Sound Pattern** | ISO8201(BI 0.5s - pause 0.5s - BI 0.5s - pause 0.5s - BI 0.5s - pause 1.5s, with the RED LED flashing, repeat this alarm pattern) |
| **Comply with** | AS 3786: 2023 (ISO 12239 :2021) |

**BESMOKEY10V2 can only be connected to other BESMOKEY10V2 or BESMOKEY10BW using the BESMOKEY10WMV2 module or BESMOKEY10REMV2**
**No other models or smoke alarm brands shall be connected to Trader Bear smoke alarms.**
**BESMOKEY10V2 must have 240V applied to operate properly long term. Battery is only designed as a backup.**

### Warning:

- This product must only be installed and serviced by an appropriately qualified electrician.
- Observe and follow all local and national electrical and building codes for installation.
- This product must only be used for the purpose described in these instructions and must be installed in accordance with the wiring rules and regulations in local region.
- Hazardous voltage may be presented at the wire leads of this product.
- Disconnect the AC power before installing or removing the smoke alarm.
- Ensure that the product has been correctly installed and tested for safe operation before reconnecting the electrical supply.
- Extended period without 240V connected will shorten the battery life.
- DO NOT connect the interconnection wire to Active or Neutral.
- A non-pure sinusoidal power sources is not suitable for this smoke alarm (e.g. derived from square-wave inverters).
- The apparatus shall not be exposed to steam or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

**Failure to follow these instructions may result in death or serious injury.**

| **Product function description:** | | |
|---|---|---|
| **Function** | **Visual Indication** | **Audio Indication** |
| **Normal Alarm Function** | The Red LED flashes every 40 seconds. | None |
| **Test (Button Pressed On Direct Unit)** | Flashes once per second. | Siren once per second for 3 seconds then pause 1.5 seconds then cycle again.<br>Unit will cycle through alarm twice then stop (total of 6x Chirps). |
| **Test (Wireless Paired Unit)**<br>Alarm being tested signals others in the network. | Indicator lights will commence approx. 15 seconds after siren has stopped<br>Flash twice every 1 second for duration of 5 minutes. | Siren once per second for 3 seconds then pause 1.5 seconds then cycle again.<br>Unit will cycle through alarm up to 7 times then stop. |
| **Local Alarm Detected Smoke** | One flash per second. | Siren once per second for 3 seconds then pause 1.5 seconds then cycle again. |
| **Paired Wireless Alarm** | None | Siren once per second for 3 seconds then pause 1.5 seconds then cycle again. |
| **Silence Feature (Hush Mode)**<br>• When activated from unit that has detected smoke (initiating unit) will silence unit within 10 second, other alarms will continue to sound for approx. 30 second before Hushing.<br>• Initiating alarm can be identified by 1x Red LED Flash every 1x second<br>• When Hush is pressed on a different unit other than the initial alarm: All other alarms apart from initial alarm will silence | **When pressing Initiating alarm:**<br>• Initial alarm will Flash once every 1 second<br>• All other alarms will flash 2x per sec for 10 minutes<br>**When pressing other alarms:**<br>• Alarms that did not detect smoke the pressed unit will flash 2x per second for 10 minutes<br>• Unit that detected smoke (initiating alarm) will not silence | When Pressed on Unit that detected smoke: All other units will continue to sound alarm for approx. 30 second before HUSH is activated.<br><br>When Pressed on any other unit that has not detected smoke, all units will silence except from the unit that has detected Smoke |
| **Low Battery Warning**<br>Need to replace for a new smoke alarm | The Red LED flashes every 40 seconds. | Beep every 40 seconds. |
| **Connected Low Battery Warning**<br>(Connected device battery is running low) | 1 flash every 40sec. | None |
| **Smoke Alarm Memory**<br>(For further information see Smoke Alarm Memory section of instructions) | Alarm that detected smoke will flash 2x every 8 seconds<br>Other alarms will flash 2x every second for 5min | None |
| **Low Battery Warning Silence Feature**<br>Need to replace smoke alarm | 3 flashes every 40 seconds for 10 hours | None |
| **Internal Fault Warning**<br>Need to replace smoke alarm | 2 flashes every 40 seconds | 2x beeps every 40 second |
| **End of life** | 3 flashes every 40 seconds | 3x beeps every 40 seconds |

**Caution:**

- Before using the HUSH function, identify the source of the smoke and ensure conditions are safe. The unit will resume normal operation after 10-minute silence.
- DO not use an open flame to test your alarm, you could damage the alarm or ignite combustible materials and result in a fire.
- If the alarm sounds, and it is not being tested, it means the unit detected smoke.
  **THE SOUND OF THE ALARM REQUIRES YOUR IMMEDIATE ATTENTION AND ACTION.**

**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 or 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 1).
- Smoke alarms should be located in the vicinity of sleeping areas, bed rooms 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 metres.
- Smoke alarms 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 300mm 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 Storey**

- 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

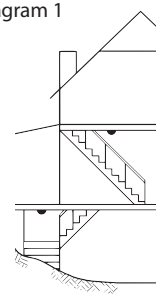
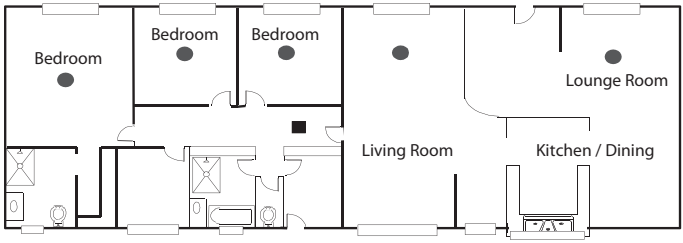
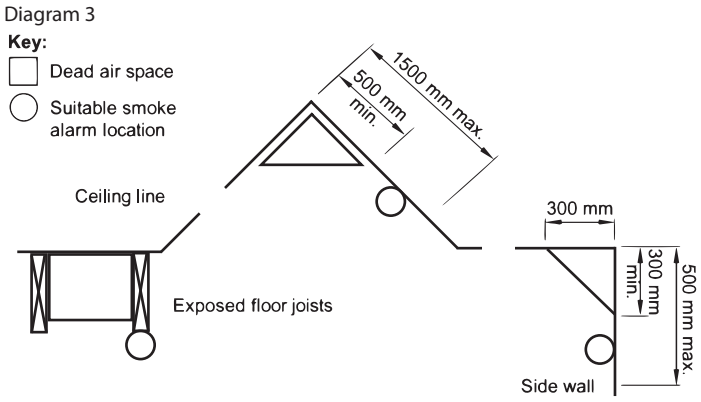


Diagram 2 - Suggest alarm location






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 metre 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.

**Caution**

- All interconnected smoke alarms must be supplied from the same circuit.
- A common Neutral wire must be used for Interconnect to function.
- MAX. Interconnected alarms: 20.
- MAX. Wiring length between first and last alarm: 150m.
- DO NOT connect the interconnect wires to Live or Neutral.
- Observe and follow all local and national electrical and building codes for installation.
- Use a minimum of 1.0 $mm^2$ 250V insulated wire for all wiring, including interconnecting wiring.
- Do not connect high powered electrical equipment to the same circuit as the alarms.
  This may cause damage to the circuitry.

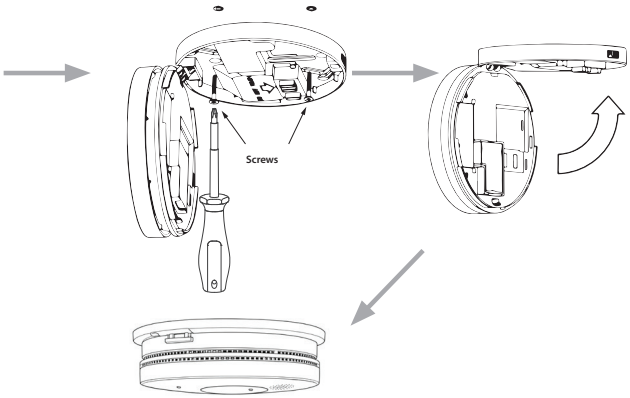
**Procedure for mains wired and interconnected alarm installation**

1. Plan out and select the appropriate locations for the alarms to be installed following building code or local requirements and all workmanship must follow AS/NZS3000.
2. Mark out positions and create holes for cabling (diagram 4).
3. Isolate power and establish required mains wired circuit to the locations for the alarms and connect to the appropriate terminals on the rear of the units. If more than one alarm is used, then the alarms must be interconnected either using the link wire on the I-connect terminal or using a wireless module BESMOKEYI0WMV2.

See section: 'Introducing Wireless Alarm option into network:

4. Follow wiring shown in diagram 5.
5. Mount base to the mounting surface using the supplied gyprock screws.
6. Turn battery switch to the ON position and close cover.

Diagram 4

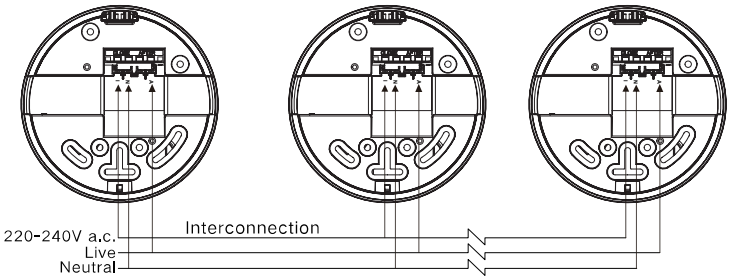



**WARNING:** To prevent injury, this unit must be securely attached to ceiling in accordance with the installation instructions.

Diagram 5

**Terminal:**

| | |
|---|---|
| **I** | **: Interconnection** |
| **N** | **: Neutral** |
| **Blank** | **: No Wiring** |
| **A** | **: Active** |




**Introducing Wireless Alarm Option into the network with the BESMOKEY10WMV2 module**

1. Prior to installation determine if there is a need for the use of wireless alarms in the network.
2. This module can be installed into the BESMOKEY10V2 by first disconnecting the power and opening one of the mains powered alarms and turning OFF the battery, replace the blank housing with the BESMOKEY10WMV2 wireless module (diagram 6).
3. The BESMOKEY10WMV2 communicates at 433.42MHz and can operate at range greater than 60m.
4. With the power off select one mains wired alarm to be the master for the wireless link and install the BESMOKEY10WMV2. Caution: Only install one pluggable BESMOKEY10WMV2 module into a group of hardwired interconnected alarms. If there is more than one wireless module installed with wired interconnected alarms, it will not work.

5. Turn the alarm on at the switch and clip alarm to the base. The alarm will automatically search for the module after being turned on. The red LED will flash once with one beep from the unit.
6. If the module was not installed correctly, or otherwise not recognized by the alarm, when the unit is turned on it will beep once and the red LED will flash for 8 seconds.
7. Repeat these steps with all alarms to be interconnected.
8. Additional Wireless 10 Year Lithium powered alarms can be added to the network by combining the BESMOKEY10V2 and inserting the BESMOKEY10WMV2 module without wiring to the mains and using the 10 Year Lithium Battery option only. These can be paired with the wireless master (Pairing the Alarm, fig 5).
9. If no wireless alarms are in circuit, jump from Step 3 to 11
10. Turn ON Mains power
11. To test the alarms, press the TEST button for at least 2 seconds. The unit will alarm, and the light will flash for as long as the TEST button is pressed.

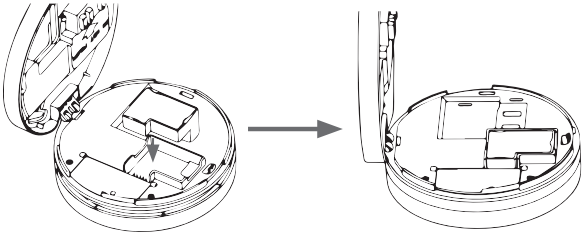
**Pairing the Alarm**

1. Choose one smoke alarm as the master. Mark this unit as Master on the rear of the unit for future reference.
2. Ensure to always use the same Master unit whenever pairing a new unit Press TEST button 3 times in 2 seconds to turn alarm into Pairing mode.
3. The master alarm will flash a RED LED once per second for approx. 10sec. Then remain solid for 1 minute.
4. Using the next smoke alarm to be linked press TEST 3 times in fast succession to place the alarm into pair mode where it searches to link to the master
5. The newly linked alarm will flash red and then follow with a short chirp which the Master will mimic indicating it is connected.
6. The master exits pairing mode after 1minute, it is suggested to prepare multiple alarms for pairing prior to entering pairing mode with the Master.
7. Repeat steps 4 to 6 if multiple alarms are required to be paired.
8. When the alarms are successfully paired to the master, press the test button ONCE on the master to exit pairing mode or wait for the 1min to exit pairing automatically. The RED LED will turn off.
9. Once the alarms are paired and the network created, take alarms to the mounting locations, mark out positions, drill 5mm holes and install ceiling plugs (diagram 5) and assemble them to the mounting brackets.

**NOTES:**

**1.The BESMOKEYI0V2+BESMOKEY10BWV2 can also be networked with the BESMOKEY10BWV2 and BESMOKEY10REMV2 as shown in diagram 6.**

**2.The BESMOKEY10V2 can NOT be connected to the BESMOKEY10+BESMOKEY10BW BESMOKEY10BW and BESMOKEY10REMV2.**



**Test Procedure**

1. Make sure all alarms are on and have a RED LED flash once every 40sec.
2. Press and hold TEST button until alarm begins to sound.
3. Pressed alarm will begin to sound its alarm, and the red LED will flash once per second for 3sec approx.
4. Release the Test button. The unit will stop alarming after approx. 3x chirps of the alarm.
5. All interconnected alarms will sound their alarm once every second for 3 seconds.
   The units will repeat this up to 7 times.
6. Once receiving alarms have stopped sounding, the red LED will begin to
   flash twice every second to signify they are in test mode.
7. Test mode will continue for 5mins. At the end of 5mins the LED flash will return to normal (once every 40sec).
   The initial alarm will continue to flash once every 40sec.
8. To exit Test mode early:

a. Press Test button Once quickly

**Disconnecting an alarm from a network and returning to factory settings**

1. Put alarm into pairing mode – Step 4 "Pairing the Alarm" • Press TEST button 3 times in 2 seconds
2. Wait for the RED LED to stop flashing – 10sec
3. Press and hold the TEST button the red LED will continually flash
4. Hold the Test button until the unit sounds a short BEEP – approx. 15sec
5. The red LED will stop flashing.
6. Release the TEST button
7. The unit has now been RESET

**Silence or HUSH the alarms**

1. Investigate and determine the reason for the alarms to be sounding
2. If there is no active fire present HUSH mode can be activated
3. Determine the alarm that originally sounded the alarm
   •Unit will have a RED LED flashing once every second
4. Press HUSH button on alarm that originally triggered.
   - The unit that has been pressed will silence straight away
   - All other units will have a 30sec delay before HUSH will activate
5. If HUSH is pressed on any alarm other than the unit that has detected smoke
6. Unit that detected smoke will NOT Hush
   • All other units will HUSH
7. Units will all Hush and remain in HUSH for 10mins

**If there is still smoke present at the end of 10mins the alarms will activate again.**

**Alarm Memory Feature**

After the device exits smoke alarm mode, the device will enter a 7-day alarm memory status: the red LED will flash twice every 8 seconds. In the alarm memory status, pressing the device buttons will prevent the device from issuing a test alarm. If the TEST button is pressed during the Smoke alarm memory period the alarm that detected smoke will enter a Location state. Location state will have the alarm start a series of rapid beeps once every second. This state cannot be stopped for 1min.

The alarm memory status can be cleared using either of the following steps:

1. Continue to hold down the test button until the alarm sounds the Test alarm noise.
   a. During the reset procedure the other interconnected alarms may sound a test alarm. This will stop after the units has been reset.
2. Quickly Press Test button 5 times. Indicator light will continue to flash for approx. 7 days to easily identify the alarm.

**Cleaning and Maintenance**

Smoke Alarms are prone to dust and insect ingress which can cause false alarms. It is essential to clean the smoke alarm periodically. The Smoke Alarm must be kept clean so that excess dust does not build up. Any insects or cobwebs in the vicinity of the Smoke Alarm should be promptly removed. Vacuum the outside of the Smoke Alarm to remove any dust build up. Do not spray any cleaning liquids directly onto the smoke alarm.

**Low battery mode**

When the battery is running low, the smoke alarm will indicate this with a repetitive beep and flash once every 40 seconds WARNING: This smoke alarm is equipped with a non-replaceable battery. When this warning occurs, replace the device as soon as possible! The acoustic low battery warning signal can be muted for ten hours by pressing the test button. The smoke alarm is still functioning and able to detect smoke when it's in this mode.

**Periodically apply the Test Procedure to test the alarm**.

Be sure to periodically test the alarm to ensure its correct operation See "Test alarm" Section for test instructions.

**Develop an Escape Plan**

As part of your plan, all family members should know and/or practice:

1. How to exit from upstairs, for homes with a second storey. A rope or chain may be required.
2. An agreed upon meeting place outside, such as the letterbox
3. The sound of the smoke alarm and practice leaving your home when they hear it.
4. A fire drill at least every six months including drills at nights. Practice allows you to test your plan before an emergency. You may not be able to reach your children. It is important that they know what to do!

**What to do if the Alarm sounds**

1. Alert any small children and elderly persons.
2. Leave immediately by your plan of escape. Every second counts, so don't waste time getting dressed or picking up valuables.
3. In leaving, don't open any inside door without first feeling its surface. If hot, or if you see smoke seeping through cracks, don't open that door! Instead, use your alternate exit. If inside door is cool, place your shoulder against it, open it slightly and be ready to slam it shut if heat and smoke rush in.
4. Stay close to the floor if air is smoky. Breathe shallowly through a wet cloth if possible.
5. Once outside, go to your selected meeting place and make sure everyone is there.
6. Call the Fire Brigade on 000.
7. Don't return to your home until officials say that it is safe to do so. For further information on fire safety contact your local Fire Brigade.

**Hush Mode**

In the event of an alarm condition, pressing the HUSH button on the alarm unit will silence the alarm for approximately 10 minutes. NOTE: Where multiple alarms are interconnected, the HUSH function WILL NOT OPERATE EXCEPT ON THE UNIT THAT THE ALARM WAS TRIGGERED FROM. The triggered unit can be identified by the RED LED flashing.

**Do Not Disturb Mode**

When the unit indicates a low battery alarm or internal fault, pushing the HUSH button will silence the alarm for 10 hours see Product Function table for further information.

| **Trouble Shooting:** | |
|---|---|
| **Problem** | **Cause and Remedy** |
| The green LED does not light when AC power supplied | • Check the AC line is properly connected to the smoke alarm.<br>• Ensure that the AC power is turned on. |
| The Red LED does not flash every 40s | • Ensure the switch is in the ON position<br>• Ensure that the AC power are properly connected. |
| Smoke alarm does not sound when tested | • Ensure the AC power are properly connected.<br>• Ensure the switch is in the ON position<br>• Turn off the AC power and clean the smoke alarm. |
| Low battery warning | • Replace Alarm. |
| Fault warning | • Clean smoke alarm. Wait 5 minutes. |
| False alarm | • Press the HUSH button to silence it.<br>• Clean smoke alarm device.<br>• Move the smoke alarm device to new location.<br>• Dust or insect contamination - vacuum around Smoke Alarm to remove web or insects or blow with cool air dryer to clear dust to prevent false triggering. |
| The alarm can't interconnection alarm | • Check the Live, Neutral, Interconnection wires are properly connected<br>• Check the interconnected smoke alarm s are supplied from the same circuit. |
| **If the problem still exists, please return to your electrical wholesaler.**<br>**If the unit is out of warranty, please replace another new alarm.** | |

# Also available in the Bear Range

## BESMOKEY10BWV2

**Smoke Alarm Wireless Interconnect Photoelectric Surface Mount Non Removable 3V DC Lithium 10 Year Battery Powered Only White**



**Battery Only**
**Wireless Interconnection**



BESMOKEY10V2 & BESMOKEY10BWV2
Dual-Spectrum Technology

Early Warning

**5.9x** Greater Dust Tolerance*

**4.4x** Greater Vapour Resistance*

Reduce Nuisance Alarms

**5.6x** Greater Insect Resistance*

**3.9x** Greater Construction-Dust Resistance*

*Compared with BESMOKEY10 1st Generation Sensor Technology

# Also available in the Bear Range

## BESMOKEY10REMV2

**Give you the option to remotely Test & Hush all your alarms from one location**
**35m detection radius**




## BESMOKEY10WMV2

**Smoke Alarm Module for Wireless Interconnecting BESMOKEY10V2 433MHz 13dB**



**Disposal:**
Waste electrical products and batteries should not be disposed of with your other household waste. The alarm is ideally suited for disposal within the waste electronic and electrical equipment (WEEE) recycling scheme. Please recycle where facilities exist. Check with your local authority, retailer or contact our Technical Support team for recycling/disposal advice as regional variations apply. Once the batteries are removed, the low battery warning chirp will stop. The batteries should always be removed before disposal.



**10 Year Manufacturer's Warranty**




This product has been manufactured to the highest quality standards.
This product is warranted to the original purchaser and is not transferable.

The product is guaranteed to be free from defects in workmanship and parts for a period of 10 Years from the date of purchase. Defects that occur within this warranty period, under normal use and care will be repaired, replaced or refunded. The benefits conferred by this warranty are in addition to all other rights and remedies of the consumer under Commonwealth, State and Territory laws in relation to the goods or services to which this warranty relates and Australian Consumer Law. Risk in regard to the product to be repaired shall at all times remain with the Purchaser. The warranty is given on the condition that the product to which it applies is used for the purpose and in the manner intended by its construction and for no other purposes whatsoever. GSM Electrical (Australia) Pty Ltd shall not be responsible for damage of any kind, caused by accidents, power surges, electrical storm damage, incorrect power current, infestation (vermin or insect), incorrect installation, incorrect electricity or plumbing installation, improper use of controls or failure to use the product in accordance with the operating instructions, general misuse or abuse or from normal wear and tear. Any attempt by an unauthorised person to repair or tamper with the equipment shall render the warranty null and void.

GSM Electrical (Australia) Pty Ltd's liability under this warranty is limited to the replacement and/or repair of the defective parts within the warranty period and does not extend to installation or removal of the product. Acceptance of liability by GSM Electrical (Australia) Pty Ltd contained herein is to the exclusion of any other remedy whatsoever and howsoever arising in respect of any equipment to which it applies.