

# QUELL

## PHOTOELECTRIC SMOKE ALARM

9V DC Battery powered

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### User Manual

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Model: Q301, Q301H



Australian  
Standard  
AS3786:2014  
Lic: SMK1377  
SAI Global

Photoelectric smoke alarms are designed to detect visible particles (associated with slow smouldering fires).

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**IMPORTANT:** READ ALL INSTRUCTIONS BEFORE INSTALLATION  
AND KEEP THIS MANUAL NEAR THE ALARM FOR FUTURE REFERENCE

## **CONTENTS OF THIS MANUAL**

<b>1. Product Features.....</b>	<b>1</b>
<b>2. Product Specifications.....</b>	<b>2</b>
<b>3. Recommended Locations for Alarms.....</b>	<b>3</b>
<b>4. Locations to Avoid.....</b>	<b>7</b>
<b>5. Installation.....</b>	<b>9</b>
<b>6. Operating and Test.....</b>	<b>11</b>
<b>7. Nuisance Alarms and Hush Function.....</b>	<b>13</b>
<b>8. Troubleshooting .....</b>	<b>14</b>
<b>9. Battery Replacement.....</b>	<b>15</b>
<b>10. Cleaning Your Alarm.....</b>	<b>16</b>
<b>11. Limitations of Smoke Alarms.....</b>	<b>17</b>
<b>12. Good Safety Habits.....</b>	<b>18</b>
<b>13. What to do When the Alarm Sounds.....</b>	<b>19</b>
<b>14. Warranty &amp; Contact Details.....</b>	<b>20</b>

Thank you for purchasing this smoke alarm. It is an important part of your family's home safety plan. You can trust Quell to provide the highest quality safety products.

Please take a few minutes to thoroughly read this user guide, and save it for future reference. Teach children how to respond to the alarms, and that they should never play with the smoke alarm.

If you have any questions about the operation or installation of your alarm, please call our toll free Customer Service at 1800 654 435

## 1. Product Features

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Model Q301 / Q301H is powered from a 9V DC battery. The smoke alarms ensure protection in the event of a power failure.

- Hush feature silences nuisance alarms for up to 10 minutes.
- The smoke alarm will sound a short beep about once every 40 seconds if the battery is low.
- Red LED Flashing every 40-50 seconds indicates smoke alarm is working normally, or is in alarm (Red LED flashing every second).
- Loud alarm sounder – 85 dB
- Test button checks smoke alarm operation.

 **WARNING! REMOVAL OF SMOKE ALARM BATTERY WILL RENDER THIS UNIT INOPERATIVE.**

The smoke alarm is a sealed unit, return to supplier for any repairs.

## 2. Product Specifications

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Model	Q301, Q301H
Electrical Rating	9V DC battery
Sensor	Photoelectric
Operating Temperature	0 °C to 40°C
Operating Humidity	Up to 93% Humidity (Non-Condensing)
Storage and Transport Conditions	-20° C to +60° C, 5-95%RH (non-condensing)
Loud alarm	85 decibels at 3 metres

### 3. Recommended Locations for Alarms

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Laws on smoke alarms vary from state to state and you should be aware of what the requirements are in your state - for more information please refer to your local fire emergency services or state regulations.

#### Recommended Locations

- In each room where an occupant sleeps with the door closed. (A closed door may prevent an alarm located outside the room from waking the occupant).
- In the immediate area of bedrooms and the exit path from all sleeping areas ([Figure 1A](#)).
- In stairwells, as stairwells act like chimneys for smoke and heat.
- In any room where large electrical appliances are operated (e.g. portable heaters or humidifiers).
- If a hallway or room is more than 7m long install alarms at both ends.
- For maximum household protection see [Figure 1C](#).

#### Things to Consider

##### For Ceiling Mounting:

Smoke, heat and other combustion products will rise to the ceiling and spread horizontally. Mounting the alarm in the centre of the ceiling positions it closest to all points in the room.

- When mounting an alarm on the ceiling, locate it at a minimum of 300mm from the side wall ([Figure 2A](#)).
- For sloped, peaked or cathedral ceilings the alarm should be placed between 500mm and 1500mm from the highest point of the ceiling ([Figure 2B](#)).
- The alarms in rooms with ceiling slopes greater than 1m in 8m horizontally, should be located on the high side of the room ([Figure 2B](#)).

##### For Wall Mounting:

- When mounting the alarm on the wall, use an interior wall with the top edge of the alarm at a minimum of 100mm and a maximum of 300mm below the ceiling ([Figure 2A](#)).

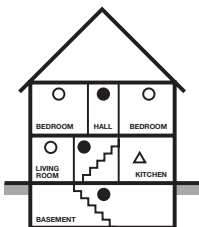
### 3. Recommended Locations for Alarms



- Smoke Alarms for Minimum Protection
- Smoke Alarms for Additional Protection
- △ Not within 3m of cooking appliances

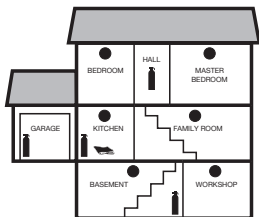
SINGLE FLOOR PLAN

Figure 1A



MULTIPLE FLOOR PLAN

Figure 1B



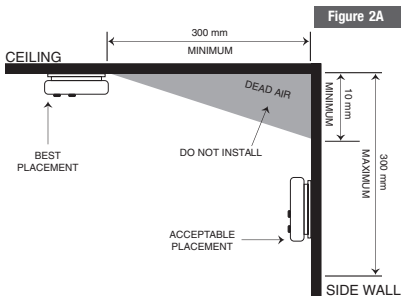
-  FIRE EXTINGUISHERS
-  SMOKE ALARMS
-  FIRE BLANKET

Figure 1C

TOTAL HOME PROTECTION

### 3. Recommended Locations for Alarms

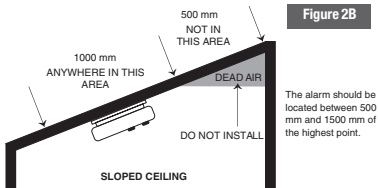
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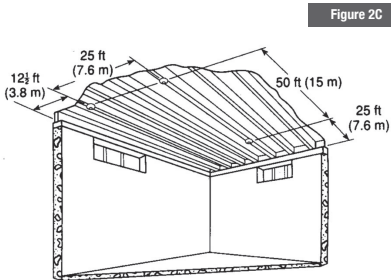
### 3. Recommended Locations for Alarms

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- When mounting the alarm on a sloping ceiling, it should not exceed 1500mm away from the apex. The spacing of additional alarms, if any, should be based on a horizontal distance measurement, not a measurement along the slope of the ceiling (see [Figure 2B](#) )



- In rooms with open joists or beams not exceeding 300 mm, ceiling mounted alarms shall be located on the bottom of such beams. (See [Figure 2C](#) )
- Alarms installed on an open-joint ceiling shall have the smooth ceiling spacing reduced to no more than half of the listed spacing when measured at right angles to the solid joist. (See [Figure 2C](#) )





### 3. Recommended Locations for Alarms

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#### Mobile Home Installation:

##### For Well Insulated Mobile Homes

Install alarms as recommended on the previous pages.

In mobile homes that are not well insulated extreme heat or cold can be transferred through poorly insulated walls and roofs. This may create a thermal barrier which can prevent the smoke from reaching an alarm mounted on the ceiling.

##### For Poorly Insulated Mobile Homes

Install the alarm on an inside wall with the top edge of the alarm at a minimum of 100mm and a maximum of 300mm below the ceiling (Figure 2A).

For minimum protection, install at least one alarm close to the bedrooms. For additional protection, see [Figure 1A](#).

**⚠ Warning: test your alarm operation after caravan or mobile home vehicle has been in storage, before each trip and at least once a week during use.**

### 4. Locations To Avoid

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- Smoke alarms should not be installed within 0.9m(3 ft)
  - of the door to a bathroom containing a tub or shower
  - forced air supply ducts used for heating or cooling
  - ceiling or whole house ventilating fans
  - other high air flow areas
- Areas where curtains or other objects will block the sensor. Smoke must be able to reach the sensor to accurately detect conditions.
- Install at least 300mm away from a light fitting.
- No closer than 400 mm outside the circumference of a ceiling fan.
- Keep out of insect infested areas.
- Avoid excessively dusty, dirty or greasy areas.
- Do not install in areas where the temperature is colder than 0°C or hotter than 40°C.
- Do not install in areas where the relative humidity (RH) is greater than 93%.
- Normal cooking may cause nuisance alarms. If a kitchen alarm is desired, it should have an alarm silence feature and should not be installed within 3m of cooking appliances.
- Avoid dead air spaces such as the peak of an "A" frame ceiling. "Dead Air" at the top may prevent smoke from reaching the alarm in time to provide early warning. Refer to [Figure 2A](#) and [2B](#).

## 4. Locations To Avoid

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**Note:** Smoke alarms are not to be used with detector guards unless the combination (alarm and guard) has been evaluated and found suitable for that purpose.

## Installation

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### Mounting

**⚠ CAUTION:** This unit is sealed. The cover is not removable!

- Remove the mounting plate from the back of the alarm by holding the plate and twisting the alarm clockwise. As indicated by the "OFF" arrow on the alarm cover.
- Hold the mounting plate against the selected installation location (wall or ceiling) and mark the centre of the holes with a pencil. To ensure aesthetic alignment of the alarm with the hallway, or wall, the "A" line on the mounting plate should be parallel with the hallway when ceiling mounted, or horizontal when wall mounted (Figure 3A and 3B).
- Drill a hole through the pencil marks and use the enclosed screws and anchors to secure the mounting plate. Use a 3/16 inch drill bit to screw the anchor holes.
- Press the battery reminder tab down into the battery compartment while inserting the battery (Figure 3E).

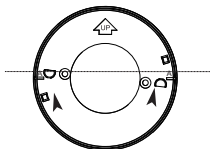
**⚠ WARNING:** Please ensure batteries are inserted correctly with positive and negative terminals connected to the corresponding point on the smoke alarm.

**⚠ CAUTION:** If the battery reminder tab is not held down in the battery compartment by the battery, the unit will not attach to the mounting plate.

Place the alarm onto the mounting plate, making sure the alignment marks are lined up. Twist the alarm anti-clockwise in the direction indicated by the "ON" arrow on the alarm cover (Figure 3D) until it locks in place.

## 5. Installation

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"A" LINE  
ALIGNMENT MARKS

Figure 3A

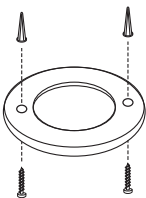
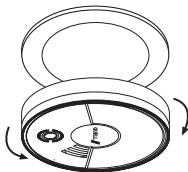


Figure 3B



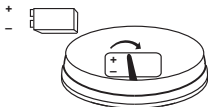
WALL MOUNTING  
POSITION

Figure 3C



ROTATE TO MOUNT OR  
TO REMOVE

Figure 3D



BATTERY  
REMINDER TAB

Figure 3E

**NOTE:** Please ensure that battery is installed prior to mounting of smoke alarm.

## 5. Installation

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### Alarm Tamper-Resist Feature

- A tamper resist feature has been provided. To activate this feature you must break out the tamper-resist blocks on the mounting plate (Figure 4A). Use a small screwdriver.
- Using this feature will inhibit the removal of the alarm from the mounting plate.
- The tamper-resist tab will have to be released in order to change the battery. Using a tool (small screwdriver) push the tab away from the mounting plate (Figure 4B) and rotate the alarm clockwise in the "OFF" direction.
- After installation, test the alarm by depressing and holding down the Test/Hush button for several seconds. This should sound the alarm.

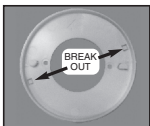


Figure 4A



Figure 4B

## 6. Operation And Test

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The smoke alarm is operating once new battery is installed and testing is complete. When the smoke alarm senses smoke, the horn will sound a loud (85db) pulsating alarm( 3 beeps repeating).

### **Red LED indicator:**

This smoke alarm features a red LED indicators that can be seen through the Push-to-Test button.

### **RED**

Red LED Flashes once every 40 to 50 seconds

– Indicating normal operation.

Red LED Flashes once a second

– Smoke alarm senses smoke and simultaneously sounds an audible alarm

Red LED Flashes once every 10 seconds

– Smoke alarm is in hush mode.

### **Testing the smoke alarm**

Test the unit, to ensure proper operation, by pressing the Test/Hush button for at least 5 seconds (or until the unit sounds). This will sound the alarm if the electronic circuitry, horn, and battery are working.

**⚠ CAUTION:** Due to the loudness (85 decibels) of the alarm, stand at arm's length from the smoke alarm when testing. The alarm sounder is loud to alert you to an emergency and can be harmful to hearing when you are too close.

Test the smoke alarm weekly and upon returning from holiday, or when the house has been unoccupied for several days.

**NOTE: WEEKLY TESTING IS RECOMMENDED.**

**⚠ WARNING:** If alarm sounder activates, and smoke alarm is not being tested, the smoke alarm is sensing smoke. **THE ACTIVATION OF THE ALARM SOUNDER REQUIRES YOUR IMMEDIATE ATTENTION AND ACTION.**

## 7. Nuisance Alarms and Hush Function

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This alarm is designed to minimise nuisance alarms. Cigarette smoke will not normally cause the unit to alarm, unless the smoke is blown directly into the alarm. Combustion particles from cooking may set off the alarm if it is located too close to a cooking appliance. Large quantities of combustible particles are generated from spills or when boiling. Using the fan on a range hood which vents to the outside (non-recirculating type) will also help prevent nuisance alarms from occurring by removing these combustible products from the kitchen.

### HUSH

If you know why the alarm is sounding, and you can verify that it is not a life threatening situation, you can push the button on the alarm to silence the alarm for up to 11 minutes. If the smoke is not too dense, that alarm will silence. After the Hush period, the smoke alarm will automatically reset and sound the alarm if particles of combustion are still present. You can use Hush repeatedly until the air has been cleared of the condition causing the alarm.

**Note: Dense smoke will override Hush and sound a continuous alarm. If no fire is present, check to see if one of the reasons listed in page 7. LOCATIONS TO AVOID may have caused the alarm. If a fire is discovered, exit the building and call the fire brigade.**

## 8. Troubleshooting

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PROBLEM	SOLUTION
<p>Smoke alarm does not sound when tested.</p> <p>NOTE: Push and hold test button for at least five (5) seconds while testing.</p>	<p>Check that battery is installed correctly as shown in page 15.</p>
<p>Single chirp about once every 40 seconds</p>	<p>Replace battery. See "page 15: Battery Replacement".</p>
<p>Smoke alarm sounds unwanted alarms for example when residents are cooking, taking showers, etc.</p>	<p>Relocate the smoke alarm to a new location See "page 8: Installation Instructions" and "page 7: Locations to Avoid".</p>

**NOTE: Contact Customer Service at 1800 654 435, if your alarm does not seem to operate correctly.**

## 9. Battery Replacement

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This smoke alarm uses a 9 volt battery. A fresh battery should last for one year under normal operating conditions.

This alarm has a low battery monitor which will cause the alarm to “chirp” approximately every 40-50 seconds for a minimum of 30 days when the battery gets low.

Replace the battery when this condition occurs. The low battery chirp will occur at the same time as the red LED flash.

### Smoke Sensing Chamber Operation

This alarm will “chirp” if it detects a problem with the smoke sensing chamber. This chirp will occur approximately 20 seconds after the flash of the red LED indicator light.

Clean the alarm. If the alarm is still chirping, replace the alarm.

Use only the following 9 volt batteries for replacement:

Alkaline Type	Energizer 522 Duracell MN1604, MX1604 Gold Peak 1604A Panasonic 6AM6, 6AM-6, 6AM-6PI, 6AM6X or 6LR61(GA)
Lithium Type	ULTRALIFE U9VL-J

These batteries can be purchased at your local retailer.

**⚠ WARNING!** Use only the batteries specified above.

- To the extent permitted by law, Kidde Australia Pty Ltd excludes all liability for loss or damage to the extent caused by the use of batteries other than Energizer 522; Duracell MN1604 or MX1604; Gold Peak 1604A; Panasonic 6AM6, 6AM-6, 6AM-6PI, 6AM6X, 6LR61 (GA) or ULTRALIFE U9VL-J.
- The use of other batteries may have a detrimental effect on operation of the smoke alarm or may cause the battery to explode resulting in injury or fire.

A good safety measure is to replace the battery at least once a year, or at the same time you change your clocks for daylight saving time.

Be sure to follow the battery installation instructions printed on the back of the alarm.

**Note: Weekly testing is recommended**



## 10. Cleaning Your Alarm

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### **YOUR ALARM SHOULD BE CLEANED AT LEAST ONCE A YEAR**

To clean your alarm, remove it from the mounting bracket as outlined in “page 15 Battery Replacement and page 9, Figure 3E”. You can clean the interior of your alarm (sensing chamber) by using compressed air or a vacuum cleaner hose and blowing or vacuuming through the openings around the perimeter of the alarm. The outside of the alarm can be wiped with a damp cloth.

After cleaning, reinstall your alarm and test your alarm by using the test button. If cleaning does not restore the alarm to normal operation the alarm should be replaced.

**After cleaning, reinstall your alarm and check that the Red LED flashes once every 40 to 50 seconds. Then test your alarm by using the test button.**

## 11. Limitations Of Smoke Alarms

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**⚠ Warning! Smoke alarms are devices that can provide early warning of possible fires; however, alarms have sensing limitations.**

Ionisation sensing alarms may detect invisible fire particles (associated with fast flaming fires) sooner than photoelectric alarms. Photoelectric sensing alarms may detect visible fire particles (associated with slow smouldering fires) sooner than ionisation alarms.

Home fires develop in different ways and are often unpredictable. For maximum protection, subject to applicable legal requirements in each State and Territory, Quell recommends that both ionisation and photoelectric alarms be installed.

Loose batteries, where fitted, must be of the specified type, in good condition and installed properly. AC only powered alarms will not operate if AC power has been cut off such as by an electrical fire, an open fuse or loss of mains supply. All alarms must be tested regularly to make sure the batteries and the alarm circuits are in good operating condition.

Life safety from fire in residential occupancies is based primarily on early notification to occupants of the need to escape, followed by the appropriate egress actions by those occupants. If the alarm is located outside the sleeping room or on a different floor, it may not wake up a sound sleeper. The use of alcohol or drugs may also impair one's ability to hear the smoke alarm. For maximum protection, a smoke alarm should be installed in each sleeping area on every level of a home. Smoke alarms cannot provide an alarm if smoke does not reach the unit. Therefore, smoke alarms may not sense fires starting in chimneys, walls, on roofs, on the other side of a closed door or on a different floor. Hearing impaired occupiers should consider fitting additional accessories to give a visual or tactile (Vibrating pad) alarm.

Although smoke alarms can help save lives by providing an early warning of a fire, they do not prevent property damage. Home owners and renters should have adequate insurance to protect their property.

If after reviewing this user guide you feel that your smoke alarm is defective in any way, do not tamper with the unit. Refer to Section 14 Warranty and Contact Details.

## 12. Good Safety Habits

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### DEVELOP AND PRACTICE A PLAN OF ESCAPE:

- Install and maintain fire extinguishers on every level of the home and in the kitchen, basement and garage. Know how to use a fire extinguisher prior to an emergency.
- Make a floor plan indicating all doors and windows and at least two (2) escape routes from each room. Second story windows may need a rope or chain ladder.
- Have a family meeting and discuss your escape plan, showing everyone what to do in case of fire.
- Determine a place outside your home where you all can meet if a fire occurs.
- Familiarise everyone with the sound of the alarm and train them to leave your home when they hear it.
- Practice a fire drill at least every six months, including fire drills at night. Ensure that small children hear the alarm and wake when it sounds. They must wake up in order to execute the escape plan. Practice allows all occupants to test your plan before an emergency. You may not be able to reach your children. It is important they know what to do.
- Current studies have shown alarms may not awaken all sleeping individuals. It is the responsibility of individuals in the household that are capable of assisting others to provide assistance to those who may not be awakened by the alarm sound, or to those who may be incapable of safely evacuating the area unassisted.

## 13 What To Do When The Alarm Sounds

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- Leave immediately by your escape plan. Every second counts, so don't waste time getting dressed or picking up valuables.
- While 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 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.
- Stay close to the floor if the air is smoky. Breathe shallowly through a cloth, wet if possible.
- Once outside, go to your selected meeting place and make sure everyone is there.
- Call the fire department from your neighbour's home - not from yours!
- Don't return to your home until the fire officials say that it is all right to do so.
- There are situations where a smoke alarm may not be effective to protect against fire.

For instance:

- a) smoking in bed
- b) leaving children home alone
- c) cleaning with flammable liquids, such as petrol

## 14. Warranty & Contact Details

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### TEN YEAR WARRANTY

#### Warranty

Quell warrants to the original consumer purchaser that each new alarm will be free from defects in materials and workmanship under normal use for a period of 10 years from the date of purchase. To the extent permitted by law, Quell agrees to repair or replace (at our discretion) any defective product on presentation of the proof of purchase.

#### Australia warranty claims:

Where the goods are offered for sale in Australia, the benefits to the consumer given by this warranty are in addition to other rights and remedies of the consumer under the Australian Consumer Law and other applicable laws relating to the goods. 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.

#### New Zealand warranty claims:

Where the goods are offered for sale in New Zealand, the benefits to the consumer given by this warranty are in addition to other rights and remedies of the consumer under relevant New Zealand consumer protection laws and other applicable laws relating to the goods. Our goods come with guarantees that cannot be excluded under relevant New Zealand consumer protection laws. 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.

#### Exclusions

Subject to non-excludable laws, this warranty does not cover:

- normal wear and tear to the product or parts
- batteries or other consumables included with this product (excluding sealed non replaceable battery models)
- damage to the product caused by accidents, misuse, abuse, lack of reasonable care, tampering or repair by a person not authorised by Quell
- any product that has not been installed, operated or maintained in accordance with the manual or operating instructions provided with the product
- any damage caused by improper power input or improper cable connection
- any indirect, special or consequential loss or damage of any kind

## 14. Warranty & Contact Details

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### To make a claim

If a defect in the product appears within the time frame stated, you are entitled to submit a warranty claim by returning your product to the address shown below. **Please contact Quell on the telephone numbers provided below, Monday to Friday during 9.00AM - 5.00PM.** When returning the product, please ensure it is properly packaged so that no damage occurs during transit. Any postage and packaging expenses required to return the product to Quell will be at your cost.

Please provide the original or a copy of the proof of purchase. Also, please make sure you have included an explanation of the problem.

If Quell elects to repair the product, please note that goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods.

This warranty is provided by:

Kidde Australia Pty Ltd

ABN 68 006 252 428

10 Ferntree Place, Notting Hill, Vic, 3168

Telephone: 1800 654 435



Website: [www.quell.com.au](http://www.quell.com.au)

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