



Smoke alarm

Installer's Manual

240V Interconnectable Main Operated Alarm

For models: Q1300

Thank you for purchasing Quell 240V hard-wired photoelectric smoke alarm. Please read through our guide in full.

Chubb Fire & Security Pty Limited recommends for maximum protection that both ionisation and photo-electric (optical) smoke alarms be installed. 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.

Electrical rating 240V AC,
50Hz 80mA max per alarm
(maximum 80mA for originating unit
with 24 Devices interconnected).

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Chubb
Smoke Technologies



THE OWNER'S MANUAL SHOULD BE LEFT IN A SAFE PLACE
FOR THE PROPERTY OWNER.

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1. Installation Instructions

This alarm is designed for installation by a qualified (licensed) electrician, in accordance with current Building Code of Australia (BCA) Regulations and to any other local or building codes that may apply.

- Read these instructions **thoroughly** before proceeding. People's **lives depend on it**.
- **This manual** is supplied for your guidance and **should not be left with the property owner**. This is for use by qualified licensed electricians.
- AC alarms must be powered by a constant 240V AC, 50Hz supply that is not controlled by any form of switch.

Grade 'D' – AC with secondary power e.g. Alkaline battery/rechargeable cells. Recommended to connect to dedicated circuit that is separately electrically protected. This helps minimise Electro-Magnetic interference (EMI) on alarm interconnect line from Compact Fluorescent Light (CFL's), dimmers, low voltage (LV) transformers etc.

Only interconnect to the identical brand of smoke alarm. Do not connect to any other brand of alarm/auxiliary device unless approved by Chubb.

The Earth terminal is provided to facilitate wiring termination of the Earth wire, which plays no part in the safety protection of the alarm.

- When testing the alarm, stand back so your hearing is not damaged by the 85dB sounder.

In new build or refurb projects, protect the alarm with a dust cap to prevent insects or dust contamination by following trades. The property owner or other responsible person must be advised to remove them for the alarms to operate correctly (ideally, fit alarms at latest stage possible onto pre-installed mounting base).



Do NOT subject the alarm circuit to insulation resistance testing with the alarm base units connected. Failing to do so will cause damage outside the terms of the guarantee provisions.

Danger – electrical shock hazard!

Never restore power supply until all alarms are completely installed. Doing so before hand can cause serious injury.

Do not install in a dripping, water splashing, very humid area.

WARNING: This alarm cannot be operated from power derived from a square wave or modified sine wave inverter. These types of inverters are sometimes used to supply power to the structure in off grid installations, such as solar or wind derived power sources. These power sources produce high peak voltages that will damage the alarm.

2.Recommended Locations

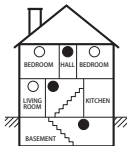
- Install the first alarm in the immediate area of the bedrooms. Install additional alarms to monitor the exit path as the bedrooms are usually farthest from the exit. If more than one sleeping area exists, install additional alarms in each sleeping area (Image 1A).
- Install additional alarms to protect any stairway as stairways act like chimneys for smoke and heat.
- Install at least one alarm on every floor level (Image 1B).
- Install an alarm in every bedroom where a smoker sleeps.
- Install an alarm in every room where large electrical appliances are operated (i.e. portable heaters or humidifiers).
- Install an alarm in every room where someone sleeps with the door closed. The closed door may prevent the alarm from waking the sleeper.
- Smoke, heat and combustion products rise to the ceiling and spread horizontally. Mounting the smoke alarm on the ceiling in the centre of the room places it closest to all points in the room. Ceiling mounting is preferred in ordinary residential construction.
- When mounting an alarm on the ceiling, locate it at a minimum of 30cm (12") from the side wall.
- The smoke alarm is suitable 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 10cm (4") and a maximum of 30cm (12") below the ceiling.
- Put smoke alarms at both ends of a bedroom hallway or large room if the hallway or room is more than 9.1m (30 feet) long.



- Smoke Alarms for Minimum Protection
- Smoke Alarms for Additional Protection
- △ Ionization Type Smoke Alarms with "Hush" Control or Photoelectric Type

SINGLE FLOOR PLAN

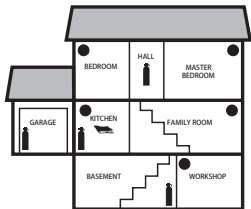
IMAGE 1A



MULTIPLE FLOOR PLAN

IMAGE 1B

- Install smoke alarms on sloped, peaked or cathedral ceilings between 500 and 1500mm from the highest point of the ceiling. Smoke alarms in rooms with ceiling slopes greater than 1 m in 8 m horizontally should be located on the high side of the room (See Image 2B).



-  FIRE EXTINGUISHERS
-  SMOKE ALARMS
-  FIRE BLANKET

IMAGE 1C

TOTAL HOME PROTECTION

3. Locations to be Avoided

- 3A • Do not install within 0.9 m (3 ft) of the following: The door to a kitchen, or a bathroom that contains a tub or shower, forced air supply ducts used for heating or cooling, ceiling or whole house ventilating fans, or other high air-flow areas.
- Do not place the alarm where curtains or other objects will block the sensor. Smoke must be able to reach the sensor to accurately detect conditions.
- Install at least 30cm (12 in) away from fluorescent lights as electronic noise may cause nuisance alarms.
- Keep out of insect infested areas. Avoid excessively dusty, dirty or greasy areas. Dust particles may cause nuisance alarms or failure to alarm.
- Extreme temperatures may effect the sensitivity of the alarm. Do not install in areas where the temperature is colder than 0°C or hotter than 40°C, such as garages and unfinished attics.
- Do not install in areas where the relative humidity (RH) is greater than 93%. Very humid areas, with moisture or steam, can cause nuisance alarms.
- Avoid placing smoke alarms in kitchen areas. Normal cooking may cause nuisance alarms. If a kitchen alarm is desired, it should have an alarm silencer feature or be a photoelectric type.
- Do not place in the garage. Particles of combustion are present when you start your automobile.
- 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.
- In 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 images 2A and 2B.

Timing of Installing/Decorating

- 3B • Install the base plate (and surface pattress if used) at 1st fix.
- **Do not install alarm until following trades have finished e.g. plasterers/painters/carpet fitters etc..**
- **Do not install alarms until property has stabilized at a habitable environment to avoid alarm contamination.**
- Dust and other contaminants e.g. paint fumes, will enter the alarm causing possible nuisance alarms and damage the sensitive components within.
- Never plug in or remove cabling when circuit is live as you could short circuit it and invalidate the guarantee.

Painting

- 3C • Never paint the alarm.
- During redecoration, all alarms should be covered with the supplied dust cover or a plastic bag to prevent contamination by fumes. (These can permanently damage the alarm). **Do not uncover until the surrounding paintwork is thoroughly dried.**
- Alarm cannot operate if covered.

IMAGE 2A

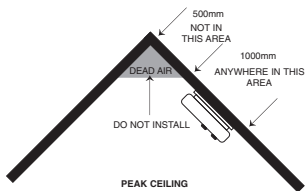
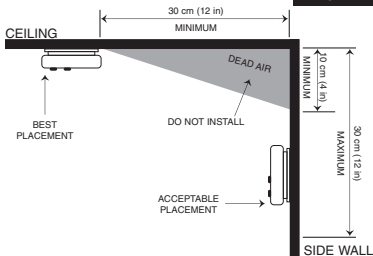
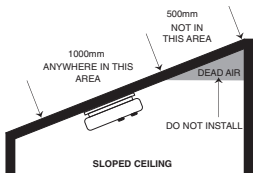


IMAGE 2B



Smoke alarm should be located between 500mm and 1500mm of the highest point.

4. Installing Alarm

- These are mains powered alarms, so isolate the mains supply before commencing installation. **This alarm is designed for installation by a qualified (licensed) electrician, in accordance with current Building Code of Australia (BCA) Regulations and to any other local or building codes that may apply.**
- Select suitable location having regard to earlier advice.
- Bring house wiring through a dry lining box into back of alarm (illustration a); side entry (illustration b), via mini trunking is also possible by carefully knibbling away edge on trim-plate. Make good joint, with white sealant, if necessary.

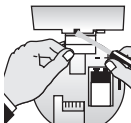


a

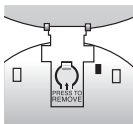


b

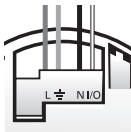
- If alarm is not being interconnected, interconnect cable terminal (I/O) on alarm is unused.
- Wire in house cabling to appropriate terminals after prising off terminal cover block (illustration c)
- If necessary the alarm can be unclipped from its base plate and just the base installed, the alarm itself can then be slid on to the hinge (illustration d)
- Please carefully check the wire cabling to appropriate terminals (illustration e)
- Ensure minimum space possible is taken up by incoming cabling, otherwise terminal cover may not shut. This will prevent alarm from properly locating on base (illustration f)



c



d

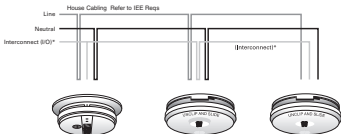


e

f



5. Interconnecting



* Interconnect only – if single alarm installation, leave unconnected the I/O terminal.

These are double insulated products and do not need earthing: never use earth conductor to interconnect – use 3 core and earth cable. Use black in 3 core & earth cabling, for interconnect line.

If installing using old cabling (different colors), take great care .

- A maximum of 24 Quell devices may be interconnected in a multiple station arrangement.
- Crossing line and neutral connections or line and interconnect connections will fatally damage all interconnected alarms invalidating the guarantee.
- All interconnected alarms must be powered off the same fuse/circuit breaker.
- Total cable length between alarms must not exceed 250m and be 1.5mm core diameter. Wiring must be installed in conformance with AS 3000.

6. Initial Testing and Checking of Alarm

- **Before powering up/testing CHECK THAT WIRING POLARITY is correct and all connections are tight. REVERSING POLARITY will damage all interconnected alarms, and damage is not covered by the Guarantee. Slide alarm fully home on base plate before powering up, to prevent arcing across the contact blades.**
- Having energised circuit, press and hold the test button – the alarm should sound and other interconnected ones also, within a few seconds.
- Do this for all alarms.
- If any do not sound, isolate mains and recheck cabling.
- If the red L.E.D. blinks every 30-40 seconds and the alarm chirps in between, it indicates fault with the sensing chamber. Press and hold the test button to perform a reset but if the unit re-enters fault mode replace the alarm.
- Advise the house-holder (if present) as to how to test the alarms.

7. L.E.D. Status

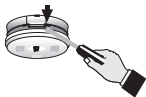
- Green L.E.D. is lit when AC power is present.
- Red L.E.D. blinks to indicate normal operation of alarm function (if model with battery back up, also indicates healthy battery). In alarm state (i.e. triggered), L.E.D. will flash rapidly. When interconnected, only triggering alarm will have this state.
- If red L.E.D. flashes every 10-11 seconds, indicates Hush feature activated (approximately for 7 minutes duration).
- If interconnected to other alarms only the triggering alarm will have a rapidly flashing L.E.D.
- If the red L.E.D. blinks every 30-40 seconds and the alarm chirps in between, it indicates fault with of the sensing chamber. Press and hold the test button to perform a reset but if the unit re-enters fault mode replace the alarm. Householders should consult Owner's Manual or installer/landlord.
- The alarm sounder and flashing L.E.D. will remain whilst the alarm continues to detect smoke.

8. Maintenance

- Alarms are sensitive electrical devices. The test button should be pushed (and held) once a week to verify operation.
- Once a month the alarm should be wiped with a mildly damp cloth, having previously vacuumed the outside of the unit, especially through the grill area. ***The mains supply should first be isolated.***

9. Battery Replacement *(AC models with loose battery only)*

- If the alarm type has replaceable battery cells, they should be replaced annually (if using alkaline, this can be extended to 2 years).
- A chirp once every 30 - 40 seconds at the same time as the red LED flashes indicates the battery needs replacement. Do this as soon as possible.
- Mains power should be disconnected at the Consumer Unit/fuse box.
- *Insert screwdriver in slot indicated to release locking tab. Whilst inserted push alarm hard with palm of hand in direction of arrow shown on alarm front.*
- To the extent permitted by law, Chubb Fire & Security Pty Ltd excludes all liability for loss or damage to the extent caused by the use of batteries other than Eveready 1222; Energizer 522; Gold Peak 1604S, 1604A; Duracell MN1604, MX1604 or Ultralife U9VL-J.

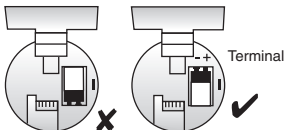


- The use of other batteries may have a detrimental effect on operation of the smoke alarm or may cause the battery to explode resulting in injury or fire.
- Do not use rechargeable batteries.
- *If a chirping noise is present after this, wait for 10 minutes to elapse.*

NOTE: TEST ALARM USING TEST BUTTON AFTER BATTERIES ARE REPLACED.

 The alarm will not locate without a battery in the compartment

Never remove or connect cable harness, without having disconnected mains power, or arcing could occur, damaging the alarm.



On rechargeable models there is not battery compartment, check battery is installed the right way - type of alarm is indicated on alarm.

- Reinstall on alarm base plate affixed to ceiling and push (and hold) test button to verify battery operation.



Battery Changing

- Reconnect mains supply and check green L.E.D. is lit and red L.E.D. flashes intermittently.



10. Repair/Serviceing

- If the alarm is not functioning, first check the troubleshooting section. If this does not rectify the problem:
- Consult your installer, wholesale distributor or landlord for advice if property is rented.
- There are no user serviceable parts, except for models with loose batteries.
- *Do not attempt to dismantle the alarm – this will invalidate the warranty.*

11. Limitations of Smoke Alarm

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, Chubb 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 strobe accessories to give a visual 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 manual you feel that your smoke alarm is defective in any way, do not tamper with the unit. Refer to Section 11. Contact your Installer, Wholesale Distributor or Landlord.

12. Troubleshooting



Always turn off the mains supply to AC alarms before checking connections etc.

Symptom	Possible cause/solutions
1. Green L.E.D. not lit	<p>a. <i>Loss of mains power – check at Consumer Unit for Blown Fuse or tripped Circuit Breaker.</i></p> <p>b. <i>Check cables at back of alarm, are correctly seated / wired in and the alarm is pushed fully home (see "Battery Changing" section).</i></p>
2. Frequent nuisance alarms	<i>See sections 2,3,4 and 7. If sited incorrectly/not regularly cleaned as section 8, nuisance alarms can occur.</i>
3. Alarm chirps every 30-40 seconds	<i>Verify green LED is lit continuously then see section 9 to replace battery if applicable. If unit has rechargeable battery or problem persists after installing a new battery, contact customer service.</i>
4. Alarm does not sound when test button pressed and held.	<i>See parts 1a and 1b above. Have installer re-check wiring if Green LED is illuminated, but alarm does not appear to function. If no Green LED check consumer unit. Alarm will still function on battery power, if battery is in serviceable state. <When operating off battery, the red LED will blink about once a minute>. Check via Test Button.</i>
5. Interconnected alarms do not sound when test button is pressed and held.	<i>See part 1b above – consult a qualified electrician or your Landlord to remedy as soon as possible.</i>

Consult our website for additional information and help

www.quell.com.au

13. Warranty & Contact Details

TEN YEAR LIMITED WARRANTY

Warranty

Chubb warrants to the original consumer purchaser that each new smoke 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, Chubb 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 Chubb
- 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

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 Chubb 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 Chubb 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 Chubb 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:

Chubb Fire & Security Pty Ltd

ABN 47 000 067 541

A UTC Climate, Controls & Security Company

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ABN 47 000 067 541



Australian
Standard

AS 3786:2014

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