

# QUELL

**SMOKE ALARM  
OWNERS MANUAL  
READ AND SAVE FOR YOUR SAFETY  
MODEL SA 602  
IONISATION TYPE BATTERY OPERATED**



Complies with Australian Standard AS3786

## SMOKE ALARM MANUAL IMPORTANT INFORMATION ABOUT YOUR SMOKE ALARM

- Install detectors outside of every bedroom area and on every floor of your home. Please refer to section 3 "Where to locate smoke alarms" for details.
- Install your detector as close as possible to the centre of the ceiling.
- Your Smoke Alarm is packaged with the battery/batteries. Connect them ensuring the positive(+) contact matches the (+) positive terminal. The detector may beep when you connect the battery.
- Replace batteries if the smoke detector beeps approximately once every 45 seconds. (low battery warning).
- Test the detector weekly by pressing and holding the test button for a few seconds until the alarm sounds.

Models described in this manual are designed for single family residences, including homes, apartments and mobile homes.

## SPECIAL SMOKE ALARM FEATURES

- Low Battery Warning Beep – approximately 45 seconds for a minimum of 7 days to alert you when the battery needs replacing.
- Hush Button – Press the multi-purpose "Test" button to silence false alarms. Alarm will automatically reset after approximately 15 minutes. Please refer to section 6.
- Alarm body cannot be fixed to the bracket if a battery is not fitted.

## CONTENTS OF THIS MANUAL

1. CAPABILITIES AND LIMITATIONS OF SMOKE ALARMS
2. SAFETY TIPS
3. WHERE TO LOCATE SMOKE ALARMS
4. NFPA RECOMMENDATIONS
5. LOCATIONS TO AVOID
6. INSTALLATION AND TESTING
7. BATTERY REPLACEMENT
8. MAINTENANCE AND TROUBLESHOOTING
9. LIMITED WARRANTY

## 1. CAPABILITIES AND LIMITATIONS OF SMOKE ALARMS

Quell smoke alarms are designed to provide the earliest possible warning of fire and smoke at reasonable cost. Early warning can mean the difference between a safe escape and no escape at all. While smoke alarms can provide invaluable protection for you and your family, they do have limitations.

- Smoke alarms cannot work without power. Battery operated alarms will not work without proper batteries, with dead batteries or if batteries are not properly installed. AC powered alarms will not work if their AC power supply is cut off by an electrical fire, an open fuse, a circuit breaker or any other reason. If you are concerned about the reliability of either batteries or your AC power supply for any of the above reasons, you should install both types or AC/DC powered smoke alarms for added security.
- Smoke alarms are incapable of sounding the alarm until smoke reaches the sensing chamber. Anything preventing smoke from reaching the detector may delay or prevent an alarm. A smoke alarm cannot detect fire in the walls, chimney or roof unless and until a significant amount of smoke reaches the alarm. A closed door may prevent smoke from reaching an alarm on the other side of the door. A smoke alarm may not sense a fire on another floor of a home.
- Smoke alarms may not be heard. The loudness of the horn in your detector meets current standards. However, the sound may be blocked by distance, closed doors, or ambient noise such as traffic or stereo. Smoke detectors may not be heard by persons who are hard of hearing.
- For these reasons a smoke alarm should be installed in every room or at least on every level of your home.
- Smoke detectors are not fool-proof. Smoke detectors may not always sense every kind of fire. They cannot be expected to sense fires caused by carelessness or by safety hazards. They may not give early warning of fast-growing fires caused by smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, natural causes such as lightning, children playing with matches or arson.
- There are two different types of smoke alarms currently in general use: the ionisation alarm and the photoelectric alarm. While both types of alarms are suitable for residential use, an ionisation alarm will normally respond faster to fast flaming fires. Because fires in the home develop in different ways and are often unpredictable in their growth, it is impossible to predict which type of alarm will provide the earliest warning. For best home protection, install both photoelectric and ionisation type smoke alarms in your home.
- Smoke alarms are not suitable for property, disability, life or other insurance of any kind. Home owners and renter should continue to insure their lives and property. Consult your insurance agent.
- Smoke detectors have limited lives. One or more of the many components could fail at any time. Therefore, test your smoke detector weekly. Clean and take care of it as described in this manual. Repair or replace the smoke detector when it fails to test properly. Replace detector if it is more than ten years old.

## 2. SAFETY TIPS

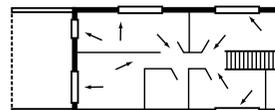
Properly installed and maintained smoke alarms are an essential part of a good, home fire safety program. Your fire safety program should also include a review of fire hazards and elimination of dangerous conditions whenever possible.

Consider the following tips:

- Use smoking materials properly. Never smoke in bed.
- Keep matches and cigarette lighters away from children.
- Store flammable materials in proper containers. Never use them near open flames or sparks.

- Keep electrical appliances in good condition. Do not overload electrical circuits.
- Keep stoves, fireplaces, chimneys, and barbecue grills grease free. Make sure they are properly installed and away from any combustible materials.
- Keep portable heaters and open flames such as candles away from combustible material.
- Do not allow rubbish to accumulate.
- Keep a supply of extra batteries on hand for your battery powered smoke detectors.

**Most important, when fire strikes, a prepared and practised escape plan could make the difference between life and death. Develop an escape plan and practice it with the entire family, including small children.**



- Ensure that all family members are familiarised with the alarm signal.
- Prepare an escape plan. Draw a Floor Plan of your Home and determine two exits from each room. There should be a way to get out of each bedroom without opening the door.
- Send a stamped, self-addressed business size envelope to Quell Fire and Safety, 120 Silverwater Road, Silverwater 2128 Australia for a free Safety Plan Chart.
- Have Fire Drills Often. Practice Your Escape and BE PREPARED.
- Decide on a meeting place at a safe distance from your home.

## In case of fire

- Don't waste time collecting possessions after a fire starts.
- Arouse all occupants and leave the building. Your most valuable possession is your life.
- Doors can mean escape – or death. Never open doors without first checking for heat. Test them with your hands. If they feel warm, fire may be walled up behind them – leave closed and find another escape route.
- Call the fire brigade from OUTSIDE the building.
- If trapped inside, stay close to the floor, cover mouth with cloth, conserve breath as you crawl to safety.
- Keep all windows and doors closed except for escape purposes.
- NEVER re-enter a burning building.
- Keep your family in a pre-arranged meeting place after your escape.

Your local fire brigade may be able to offer you additional ideas for safety in the home and escape plans.

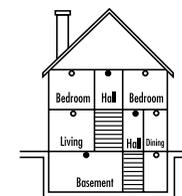
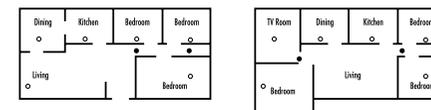
## 3. WHERE TO LOCATE SMOKE ALARMS

As a minimum, smoke alarms should be located between sleeping areas and potential sources of fire such as kitchen, heated garage or basement. In single storey homes with one sleeping area, an alarm should be installed in the hallway outside the bedrooms (see figure 1). In single storey homes with two separate sleeping areas, a minimum of two alarms are required, one outside each sleeping area (see figure 2). In multilevel or split-level homes, as a minimum, an alarm should be installed outside each sleeping area, in the basement and at every level of the home (see figure 3). For added protection we recommend that you install smoke detectors in the following locations:

- In every room of your home (except the bathroom). Research indicates that substantial increases in warning time can be obtained with each properly installed, additional alarm.
- In bedrooms, in anticipation of fires cause by faulty wiring, lamps, appliances, smoking or other hazards.

- In hallways, or at a distance no greater than 4 metres (13 feet) from the farthest wall and no greater than 8 metres (26 feet) from the next detector.
- In the centre of a room or hallway, as it is impossible to predict the source of a fire. If it is necessary to place the alarm on a wall, always locate the top of the smoke alarm 12 inches (30 cm) from the ceiling.
- As needed to compensate for closed doors and other obstacles that may interfere with the path of smoke to a detector. Closed doors and other obstacles may also prevent occupants from hearing an alarm.

Read "CAPABILITIES AND LIMITATIONS OF SMOKE ALARMS" in this manual.



○ INDICATES IDEAL COVERAGE  
● INDICATES MINIMUM COVERAGE

Your local fire brigade or insurance company may be able to give you further advice on the best smoke alarm location in your home. Call them and ask.

## 4. NFPA RECOMMENDATIONS

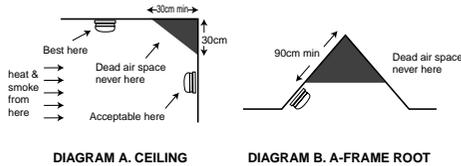
For your information, the National Fire Protection Association's Standard 74, Section 2-4, reads as follows: "2-4.1.1: Smoke detectors shall be installed outside each separate sleeping area in the vicinity of the bedrooms and on each additional story of the family living unit including basements and excluding crawl spaces and unfinished attics. The provisions of 2-4.1 represents the minimum number of detectors required by this standard. It is recommended that the householder consider the use of additional smoke or heat detectors for increased protection for those areas separated by a door from the areas protected by the required smoke detectors under 2-4.1.1 above. The recommended additional areas are: living room, dining room, bedroom(s), kitchen, attic (finished or unfinished), furnace room, utility room, basement, integral or attached garage, and hallways not covered under 2-4.1.1 above. However, the use of additional detectors remains the option of the householder. 2-1.1.2.\* For family living units with one or more split levels (i.e. adjacent levels with less than one full storey separation between levels), a smoke detector required by 2-1.1.1 shall suffice for an adjacent lower level, including basements. Exception: Where there is an intervening door between one level and the adjacent lower level, a smoke detector shall be installed on the lower level 2-2\* Alarm Sounding Devices. Each detection device shall cause the operation of an alarm which shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. The tests of audibility levels shall be conducted with all household equipment which may be in operation at night in full operation. Examples of such equipment are window air conditioners and room humidifiers. (See A-2-2 for additional information)."

## 5. LOCATIONS TO AVOID

Avoid locations where smoke may not reach the alarm in time to provide early warning, or where detector may not be effective.

DO NOT PLACE SMOKE DETECTORS:

- In turbulent air from fans, doors, windows, etc. The rapid air movement may prevent combustion particles from entering the alarm.
- 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. In rooms with simple sloped, peaked or gabled ceilings, install smoke alarms on the ceiling 90 cm (3 feet) from the highest point of the ceiling.



Note: For complex ceiling structures, consult a safety expert for the number of alarms required and the best locations.

- In very hot or cold areas where the temperature exceeds 45°C or falls below 5°C.
- Less than 12 inches (30cm) from the wall when mounted to the ceiling.
- Nuisance alarms result when smoke detectors are located where interference may occur with the sensing chamber. To avoid nuisance alarms, DO NOT place smoke detectors:
- In high humidity areas such as bathrooms and attics. Place smoke detectors at least 10 feet (3 metres) away from bathrooms.
- In insect-infested areas.
- In poorly ventilated kitchens or garages.
- In very dusty or dirty areas.
- Near fluorescent lights. Place smoke detectors at least 5 feet (1.5 metres) from fluorescent lights.

## 6. INSTALLATION AND TESTING

### A. Test Before Installation

- Connect battery
- Storage in low humidity and certain transportation conditions may cause electrostatic charges to build up in the alarm system housing. Although harmless, these charges may increase the length of time during which the horn sounds upon battery insertion or test button operation. The condition may be cleared by gently wiping the inside and outside of the plastic cover with a clean, damp cloth.
- Check the alarm by depressing the test button until the horn sounds. Note: It may be necessary to depress the test button for a few seconds for the alarm to sound. An alarm is indicated by a loud continuous sound. Alarm may continue to sound for up to 10 seconds after the button is released.

IF THERE IS ANY QUESTION AS TO THE CAUSE OF AN ALARM, ALWAYS ASSUME THAT IT IS DUE TO AN ACTUAL FIRE AND FOLLOW YOUR FIRE EMERGENCY PLANS. Do not assume it is a nuisance or false alarm. Valuable time for escape could be lost.

### Alarm Test.

- At least once a week, press the test button until the alarm sounds, then release.

## 7. BATTERY REPLACEMENT

Model SA 602 the Eveready 216, 552, 1222, Duracel MN 1604, Gold Peak 1604A and 1604P are the only acceptable batteries for use in this smoke alarm. The battery will power the smoke alarm for at least one year under normal use. When battery reaches the end of its normal life, a low battery warning (intermittent beeping) for up to 7 days, will indicate the need for battery replacement. When replacing batteries, ensure that positive and negative terminals on the battery line up with the matching terminals in the smoke alarm.

## 8. MAINTENANCE AND TROUBLESHOOTING

Vacuum every six months. Your Smoke Alarm should be cleaned every six months to help keep the unit working efficiently. Keep the vacuum nozzle from touching the unit. Do not paint the unit.

### A. WARNING LOCATIONS TO AVOID

- The garage – Products of combustion are present when you start your automobile.
- In front of forced air ducts used for heating and air conditioning, near ceiling fans, or other high air flow areas.
- In the peak of an "A" frame type ceiling.
- In an area where the temperature may fall below 5°C or rise above 45°C.
- In dusty areas, dust particles may cause the smoke alarms to false alarm or fail to alarm.
- In very humid areas, in or near a bathroom, moisture or steam can cause the unit to false alarm.
- Near fluorescent lights – electronic "noise" may cause nuisance alarms.

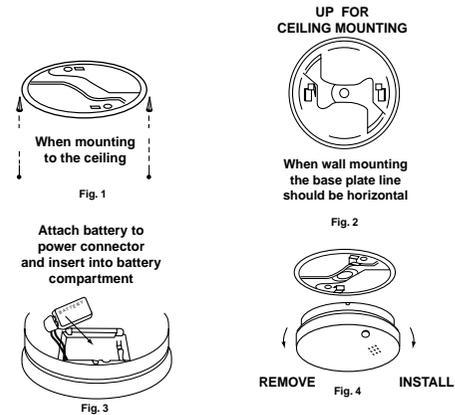
### B INSTALLATION INSTRUCTIONS:

#### CAUTION!! READ CAREFULLY

#### CAUTION THIS UNIT IS SEALED. THE COVER IS NOT REMOVABLE!

- A mounting plate is provided on the back of the alarm.
- Remove the mounting plate from the back of the alarm by holding the mounting plate and twisting it anti-clockwise. (See Figure 4).
- After selecting the proper smoke alarm location as described in section 3 and shown in the diagram, attach the mounting plate to the ceiling.
- FOR WALL MOUNTING, After selecting the proper smoke alarm location as described in section 3, use the screw and anchors provided to attach the mounting plate to the wall.
- Wall mounting of this alarm may not be as effective as ceiling mounting.**
- The battery connector is located on the inside of the battery compartment. To ensure proper installation of the SMOKE ALARM battery, follow the instructions.
- When installing the battery, align the battery connector with the appropriate terminals of the battery and push the connector onto the terminals. (See figure 3).

**CAUTION: IF THE BATTERY IS NOT PROPERLY INSERTED INTO THE BATTERY COMPARTMENT, THE UNIT WILL NOT ATTACH TO THE MOUNTING PLATE.**



### FALSE ALARMS:

Abnormal air conditions may cause the highly sensitive smoke alarm to give a "false" alarm. If no fire is apparent, press the "test button" briefly, this will silence the alarm for approximately 10 minutes. During this time ventilate the room and/or blow fresh air into the unit to clear the smoke chamber. After approximately 10 minutes and providing the smoke chamber is cleared, the smoke alarm will automatically reset.

### TRY THE FOLLOWING:

- Inspect for obvious damage.
- Gently vacuum as recommended above.
- Check that the batteries are properly connected.
- Replace batteries.

### DO NOT DISCONNECT THE BATTERY.

Dust can lead to excess sensitivity. Vacuum as recommended above.

### 9. WARRANTY INFORMATION: 2 YEAR LIMITED WARRANTY

FFE Building Services Limited warrants to the original consumer purchaser each new Smoke Alarm to be free from defects in material and workmanship under normal use and services for a period of two (2) years from the date of purchase. FFE Building Services Limited agrees to repair or replace, at its option, any defective Smoke Alarm provided it is returned with postage prepaid and with proof of the purchase date to FFE Building Services Limited. This warranty does not cover damage resulting from accidents, misuse or abuse or lack of reasonable care of the product. THE PURCHASER'S ATTENTION IS DRAWN TO RIGHTS IT MAY HAVE UNDER THE TRADE PRACTICES ACT 1974 (CTH) and similar state and territory legislation which cannot be excluded. Subject to those non-excludable rights and provisions and the above warranty, FFE Building Services Limited will not be liable for any injury to persons or damage to property or for any special direct or indirect or consequential loss or damage to property or for any special direct or indirect or consequential loss or damage whatsoever and whether as a result of negligence or fault on the part of FFE Building Services Limited or its servants, agents, suppliers and contractors or otherwise arising out of or resulting from, whether directly or indirectly, the use, installation or maintenance of the smoke alarm and any warranties or representations are excluded unless given by FFE Building Services Limited in writing.

This Smoke Alarm's manufacture and distribution is licensed by the Radiation Safety Section of the Health Department of Victoria under Statutory Rules 1984 no. 191, and by the U.S. Nuclear Regulatory Commission. The 9-volt battery included with this Smoke Alarm is excluded from the FFE Building Services Limited 2 year Limited Warranty. WHEN INSTALLING THIS ALARM FOR USE BY OTHERS, PLEASE LEAVE THIS MANUAL OR A COPY WITH THE END USER.

## 10. WHERE TO SEND YOUR SMOKE ALARM IF IT NEEDS SERVICE:

If repair or service is required, return the Smoke Alarm to FFE Building Services Limited CAN 000 067 541, In a well padded box. Ship it prepaid to: 120 Silverwater Road, Silverwater NSW 2128 Australia or call 02 8748 7000 For details of your nearest Quell branch.

Please send by courier or delivery service. DO NOT POST.

Visit our website, [www.quell.com.au](http://www.quell.com.au)

**WARNING: Radioactive material Americium 241 0.9 microcuries. Do not tamper with sealed source. When this alarm is no longer required, it should be returned to the manufacturer at the addresses listed on this instruction leaflet or to the Department of Health. Alternative methods of disposal are not permitted.**