Heat Alarm
for Residential Panels
EIB603CX

Ei Electronics®
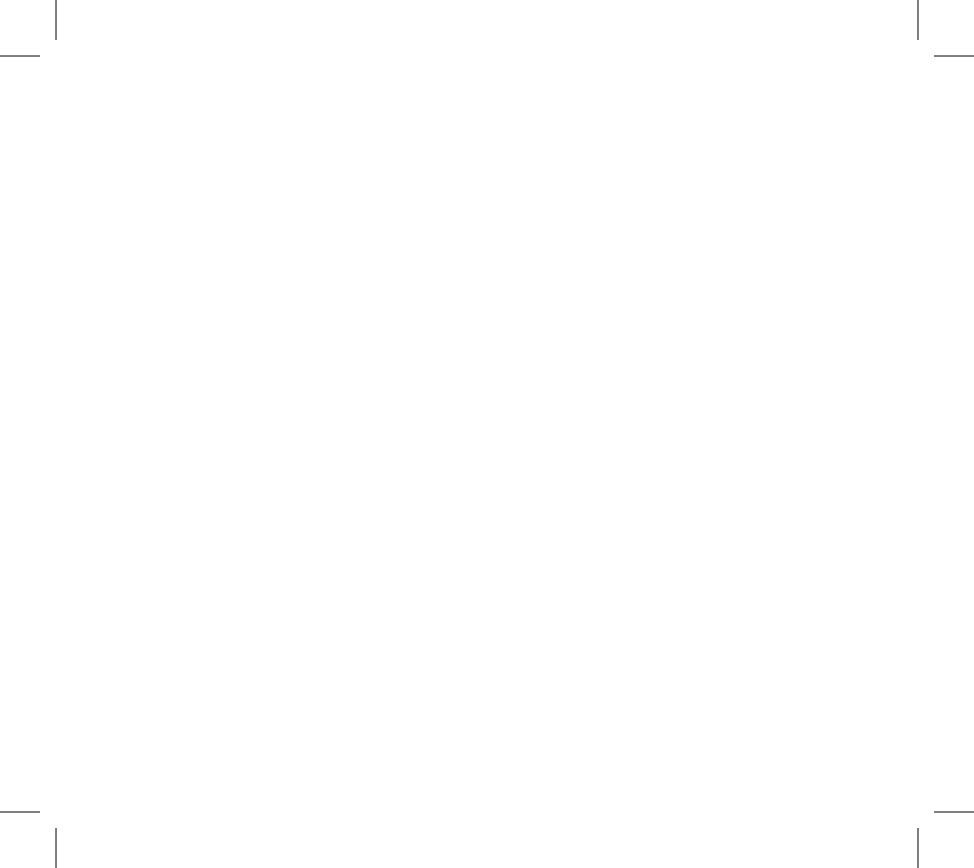fire + gas detection

BROOKS
Fire Products & Solutions

Read and retain carefully for as long as the product is being used. It contains vital information on the operation and installation of your Smoke Alarm. The leaflet should be regarded as part of the product.

If you are just installing the unit, the leaflet must be given to the householder. The leaflet is to be given to any subsequent user.
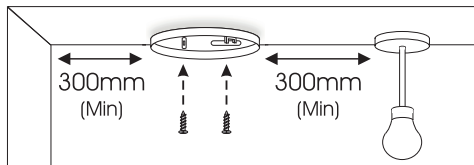
CONTENTS

1. Quick Start Guide

1 | **LOCATE CORRECT SITING POINT** | **FIX BASEPLATE TO CEILING**

300mm
(Min)

300mm
(Min)
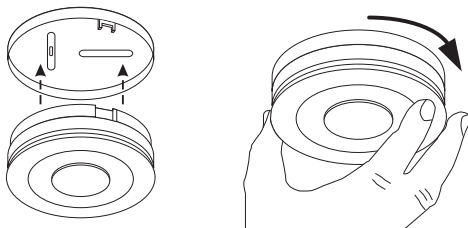
ALARM SHOULD BE CEILING MOUNTED AT LEAST 300MM FROM
WALLS & OBSTRUCTIONS, IDEALLY CENTRALLY IN ROOM/AREA
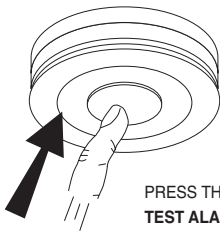
2 | **PLACE ALARM & TWIST ON TO BASE**

Quick Start Guide

3 | TEST ALARM

PRESS THE TEST BUTTON
TEST ALARM AT LEAST WEEKLY

2. Location & Positioning

Introduction

The EIB603CX Heat Alarm is a modified version of the standard EIB603C to enable hardwired connection to a Brooks Residential Fire Alarm Panel (RFAP). The combination of the Smoke and Heat Alarms with the RFAP provides for a residential fire alarm system with features and capabilities beyond simple interconnected Smoke / Heat Alarms. To fully understand these added features, this leaflet should be read in conjunction with the manual for the specific RFAP selected and the technical datasheet for the interface mounting base.

The RFAP externally powers the heat alarm and provides the interconnect facility. The Heat Alarms can be installed in kitchens and other areas where Smoke Alarms are unsuitable.

EIB603CX and EIB650iWX are interconnected with hard wiring to the RFAP to give the loudest alarm sound level throughout the house.

The EIB603CX can be used only with an RFAP, it cannot be used as standalone Heat Alarm or connected to any other systems. As Brooks are continually developing new products always check compatibility with the respective RFAP.

The Heat Alarm gives a fire warning when the nominal temperature at the Alarm reaches 58°C. It is ideal for kitchens, garages, boiler houses and other areas where there are normally high levels of fumes, smoke or dust i.e. places where Smoke Alarms cannot be installed without the risk of excessive nuisance alarms. A Heat Alarm should only be used in rooms adjoining escape routes, in conjunction with Smoke Alarms on the escape routes.

Heat Alarms EIB603CX are supplementary to Smoke Alarms and must be interconnected to the Smoke Alarms EIB650iWX to ensure that the early warning will be heard, particularly by somebody sleeping. A properly designed early warning fire system ensures the alarm is given before the escape routes become blocked with smoke. Therefore, there must be Smoke Alarms along the escape routes as Heat Alarms would not give sufficient warning.

However, a fire in a closed room (e.g. kitchen) adjoining the escape route, can eventually cause the corridor to become smoke-logged due to smoke leaking out from around the door before adequate warning can be given by detectors in the corridor. (Smoke leaking out from a room is often cool and slow moving so it can take a long time to rise to the ceiling, and travel to a detector which could be some distance away). A Heat Alarm in the closed room will give early warning of fire in that room and help overcome this problem.

Locating your Smoke Alarm

The following two examples can be used as a guide line for locating your Smoke / Heat Alarms to obtain the highest possible sound.

Multi-Storey Dwellings

If your home has more than one storey, at least one Alarm should be fitted on each level (see Figure 1). The units will be hard-wired interconnected so as to give sufficient warning throughout the property.

Figure 1 illustrates where Heat Alarms and Smoke Alarms should be located in a typical two storey house. Note the spacings in "Protection Levels" as given in Figure 1 & 2 which ensure the early detection of fire and that the warning will be heard.

Locate Heat Alarms in rooms adjoining escape routes - kitchens, garages, boiler houses etc. where Smoke Alarms are unsuitable. Install within 5.3m of potential sources of fire.

Single Storey Dwelling

If the premises is one storey you should put your first Smoke Alarm in a corridor or hallway between the sleeping and living areas. Place it as near to the living area as possible, but make sure that it can be heard loudly enough in the bedroom to wake someone. See Figure 2 for placement example.

In houses with more than one sleeping area, Smoke Alarms should be placed between each sleeping area and the living area and it is recommended that Heat Alarms should be placed in the kitchen & garage.

Recommended Protection

Fire authorities recommend you put individual Smoke Alarms in or near all rooms where fire is most likely to break out (apart from the locations to avoid e.g bathrooms - see Section 3). The living room is the most likely place for a fire to start at night, followed by the kitchen (where a Heat Alarm is recommended) and then the dining room. Consideration should be given to installing Smoke Alarms in any bedrooms where fires might occur, for instance, where there is an electrical appliance such as an electric blanket or heater, or where the occupant is a smoker. In addition, consideration should be also given to installing Smoke Alarms in any rooms where the occupant is unable to respond very well to a fire starting in that room, such as an elderly or sick person or a very young child.

Figure 1
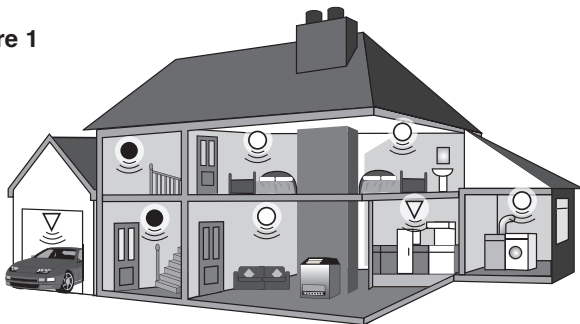
For minimum protection

- Smoke Alarm on each storey
- in each sleeping area
- every 7.5 metres of hallways and rooms
- within 3 metres of all bedroom doors
- all units interconnected

For recommended protection

in addition to the above):
- Smoke Alarms in every room (except kitchens and bathrooms)
- Heat Alarms located in kitchens, garages etc. within 5.3m of potential fire sources
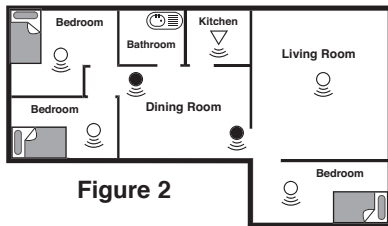

Bedroom Bathroom Kitchen Living Room Bedroom Dining Room Bedroom

Figure 2

Checking Alarms Can Be Heard

With the Alarms sounding in their intended locations check that the alarm can be heard in each bedroom with the door closed, above the sound of any TV/audio systems. The TV/audio systems should be set to a reasonably loud conversation level. If you cannot hear the alarm over the sound of the TV/audio system, the chances are it would not wake you. Interconnecting the Alarms will help to ensure that the alarm will be heard throughout the property.

Positioning

Ceiling Mounting

Hot smoke rises and spreads out, so a central ceiling position is the recommended location. The air is "dead" and does not move in corners, therefore Smoke & Heat Alarms must be mounted away from corners. Keep at least 0.3m from walls and corners (see Figure 3). Additionally, mount the unit at least 0.3m from any light fitting or decorative object which might prevent smoke or heat entering the Smoke/Heat Alarm.

We do not recommend wall mounting these Smoke/Heat Alarms.

On a Sloping Ceiling

With a sloping or peaked ceiling install a Smoke or Heat Alarm between 500mm min. and 1500mm max. of the peak (measured vertically). If this height is between 300mm min. and 500mm max. for Smoke Alarms or for Heat Alarms it is regarded as being flat (see **Figure 4**).
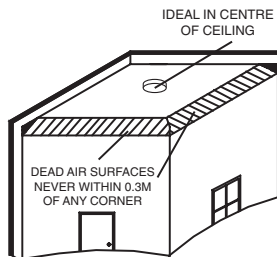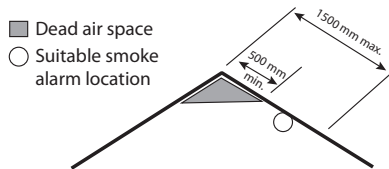
IDEAL IN CENTRE
OF CEILING

■ Dead air space
○ Suitable smoke
  alarm location

DEAD AIR SURFACES
NEVER WITHIN 0.3M
OF ANY CORNER

500 mm min.

1500 mm max.

Figure 3   **Figure 4**

Locations to avoid

DON'T place Smoke Alarms in any of the following areas:

- Bathrooms, kitchens, shower rooms, garages or other rooms where the smoke alarm may be triggered by steam, condensation, normal smoke or fumes. Keep at least 6 metres away from sources of normal smoke/fumes. Use Heat Alarms in kitchen, garages, etc.

- Locate away from very dusty or dirty areas as dust build-up in the chamber can impair performance. It can also block the insect screen mesh and prevent smoke from entering the smoke detector chamber.

- Do not locate in insect infested areas. Small insects getting into the smoke detector chamber can cause intermittent alarms.

DON'T place Heat Alarms in any of the following areas:
- Bathrooms, shower rooms or other rooms where the unit may be triggered by steam or condensation.

DON'T place Smoke or Heat Alarms in any of the following areas:
- Places where the normal temperature can exceed 40°C or be below -10°C (e.g. attics, furnace rooms, directly above ovens or kettles etc.) as the heat/steam could cause nuisance alarms.

- Near a decorative object, door, light fitting, window moulding etc., that may prevent smoke or heat from entering the Alarm.

- Surfaces that are normally warmer or colder than the rest of the room (e.g. attic hatches). Temperature differences might stop smoke or heat from reaching the unit.

- Next to or directly above heaters or air conditioning vents, windows, wall vents etc. that can change the direction of airflow.

- In very high or awkward areas (e.g. over stairwells) where it may be difficult to reach the alarm (for testing, hushing or battery replacement).

- Locate the unit at least 1m from dimmer controlled lights and wiring as some dimmers can cause interference.

- Locate unit at least 1.5m and route wiring at least 1m away from fluorescent light fittings as electrical "noise" and/or flickering may affect the unit.

3. Installation

Installation Procedure

1. Select a location complying with the advice in Section 2.

2. The mounting plate (base) is supplied with an interface board to supply power to the Alarm and communicate with other Alarms and the residential panel. (see Figure 5).

3. Place the mounting plate on the ceiling exactly where you want to mount the Alarm. With a pencil, mark the location of the two screw holes.

4. Run suitable 3 core cabling to the marked locations of each Alarm. Make the connections to the interface card (see Section 4).

ROTATE UNIT ANIT-CLOCKWISE

5. Taking care to avoid any electrical wiring in the ceiling, drill holes using a 5.0mm drill bit through the centre of the marked locations. Push the plastic screw anchors provided into the drilled holes. Screw the mounting plate to the ceiling.

6. Terminate the field wiring from the previous alarm or the RFAP into the interface PCB mounted inside the mounting base.

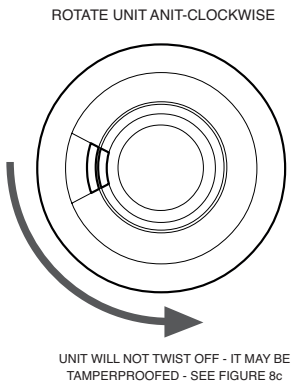7. Carefully line up the unit on the base, gentle press home & twist on.

UNIT WILL NOT TWIST OFF - IT MAY BE TAMPERPROOFED - SEE FIGURE 8c

Figure 5

13

8. Press the Test button on each Alarm to ensure that it sounds (see Figure 6).

When all the alarms are connected to the panel and the panel is powered, install all the other Alarms similarly.

Figure 6

Tamperproofing the Alarms

The Alarm can be made tamperproof to prevent unauthorised removal of the Alarm.

Break off the small pillar on the base as shown in figure 7a.

To remove the Alarm from the ceiling it is now necessary to use a small screwdriver, to release the catch (push catch towards the ceiling) and then twist off the alarm (see figure 7b).

If necessary it is possible to further secure the Alarm by using a No.2 or No.4 (2 to 3mm diameter - not supplied) self tapping screw 6 to 8mm long (see figure 7d), to firmly lock the Alarm and its mounting plate together (see figure 7c).

WARNING! To prevent injury and avoid malfunction, this apparatus must be installed in accordance with the instructions provided.

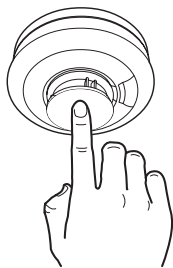Attach the Alarm to the mounting plate.

BREAK OFF SMALL PILLAR
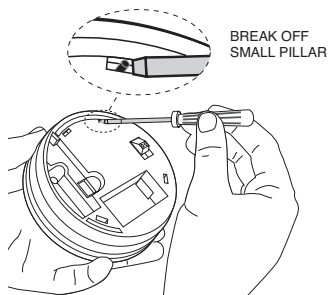
How to Tamperproof

Figure 7a

PUSH UP CATCH & TWIST ALARM ANTI-CLOCKWISE TO REMOVE

How to Remove

Figure 7b

TAMPERPROOF SCREW

Figure 7c

SELF TAPPING SCREW

6 to 8 mm

2 to 3 mm
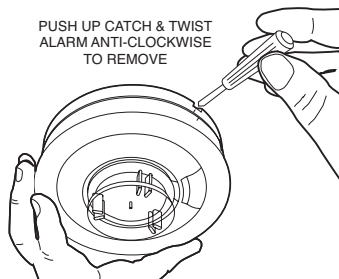
Figure 7d

Line up the screw (not supplied) on the "U" shaped recessed area shown in figure 7c and screw firmly home.

To remove the Alarm from the ceiling, remove the screw first, and then twist off anti-clockwise.

15

4. Interconnection - Hard Wired

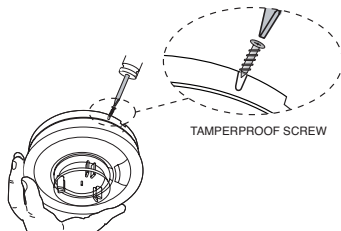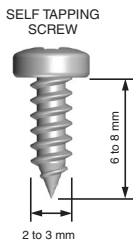The combined maximum of interconnected Smoke Alarms and/or Heat Alarms is given in the specific system design manual. For example, 12 per zone in RFP6 and 15 in RFS1 can be interconnected together such that when one Alarm senses fire all Alarms sound a warning. This helps ensure the alarm will be heard throughout the property.

Do not connect to any other device as it may damage the unit or affect performance. A maximum of 100 metres of three core cable, 1mm^2, stranded signal cable can be used, (maximum resistance between detectors 50 ohm). The Alarms are interconnected by wiring all the terminals as shown in the system manuals.

Note: Draughts from wiring openings, conduit, or mounting boxes/holes, may blow smoke away from the sensing chamber, making it insensitive. It is essential that all such ceiling openings be closed with silicone sealant or similar.

1. Run 1 - 1.5mm^2 three core cable from the RFAP to the Alarm locations.

2. Bring the cable through the opening in the mounting plate (before screwing it to the ceiling) (see figure 8).

3. If you are bringing the wiring along the surface, break out the two notches.

4. Screw the three cable cores into the terminal block on the interface card.

5. Twist the Alarm clockwise on to the mounting plate. Install and connect all the other Alarms similarly.

Now test the first Alarm by pressing and holding the Test button (this may take up to 5 seconds). The red indicator light will flash about once a second on the first Alarm and all other Alarms should sound and the RFAP buzzer will sound. (note: when the test button is released the local Smoke Alarm will stop sounding
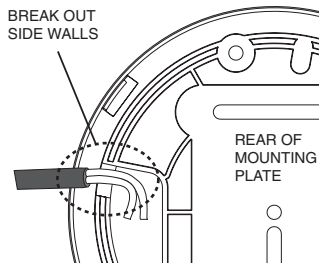
BREAK OUT SIDE WALLS

REAR OF MOUNTING PLATE

Figure 8

but the interconnected Alarms and RFAP will continue to sound for a further 3 seconds. This allows one person to check the Alarms are interconnected) Check all the other Alarms similarly.

Note: These Alarms will be interconnected within the confines of a single family living unit. If they are connected between different residences there may be excessive nuisance alarms. Everybody may not be aware that they are being tested or that it is a nuisance alarm caused by cooking etc.

5. Testing, Maintenance & Power Supply Monitoring

Your Alarm is a life saving device and should be checked periodically. Regularly check that the green light on the Alarm illuminates to show the units are powered. Replace the Alarm if the green light is off.

5.1 Manually Testing your Alarms

It is recommended that you test your Alarms after installation and then at least monthly to ensure the units are working. It will also help you and your family to become familiar with the sound of the Alarms.

- Press and hold the Test Button until the Alarm sounds and the red light flashes (see Figure 6), check that all interconnected Alarms and the RFAP sound.

- Release the Test button, the Alarm, RFAP and all connected Alarms should stop sounding.

- Repeat this procedure within 30 seconds for all other Alarms in the system.

WARNING: Do not test with flame.

This can set fire to the Alarm and damage the house. We do not recommend testing with smoke or heat as the results can be misleading unless special apparatus is used.

When you press the Test button it simulates the effect of smoke in a Smoke Alarm and heat in a Heat Alarm which they could experience in a real fire. So, there is no need to test either Alarms with smoke or heat.

5.2 Test/Hush Button to Control Nuisance Alarms

If, when the Alarm sounds, there is no sign of smoke or noise to indicate that there is a fire, it should be assumed that it is due to an actual fire and the dwelling should be evacuated immediately. Refer to the RFAP manuals for more details.

Check the house carefully in case there is a small fire smouldering somewhere.

Check whether there is some source of smoke or fumes, for example cooking fumes being drawn past the Alarm by an extractor.

If there are frequent nuisance/false alarms it may be necessary to re-locate the Smoke Alarm away from the source of the fumes.

If kitchen usage/layout is such that there are an unacceptable level of nuisance alarms, re-locate the Smoke Alarm further away where it will be less affected by cooking fumes etc. We recommend the use of a Heat Alarm in the Kitchen area to avoid such nuisance alarms.

5.3 Power Supply Monitoring

The power to the Heat / Smoke Alarms is monitored by the RFAP. If the wiring between Alarms and the RFAP is short or open circuit, a fault indication will be given at the RFAP. If EIB603CX is correctly connected to the interface board on the mounting plate and power is being supplied by the RFAP, the steady illumination of the green LED on each alarm indicates it is powered.

5.4 Cleaning your Alarm

Clean your Alarm regularly. Use a soft bristle brush or the brush attachment of your vacuum cleaner to remove dust and cobwebs from the side slots where the smoke/heat enters. To clean the cover, wipe with a damp cloth and dry thoroughly.

WARNING: Do not paint your Alarm.

Other than the maintenance and cleaning described in this leaflet, no other customer servicing of this product is required. Repairs, when needed, must be performed by the manufacturer.

5.5 Dust & Insect Contamination

All Smoke Alarms and particularly the photoelectric type are prone to dust and insect ingress which can cause false alarms.

Heat Alarms are not as susceptible to dust and contamination as Smoke Alarms, but it is prudent to clean them periodically.

The latest design, materials and manufacturing techniques have been used in the construction of Brooks Alarms to minimise the effects of contamination. However, it is impossible to completely eliminate the effect of dust and insect contamination, and therefore, to prolong the life of the Alarm you must ensure that it is 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.

In certain circumstances even with regular cleaning, contamination can build up in the smoke sensing chamber causing the alarm to sound. Contamination is beyond our control, it is totally unpredictable and is considered normal wear and tear. For this reason, contamination is not covered by the guarantee and a charge is made for all such servicing work.

5.6 End of life

The entire Alarm must be replaced if:-

• The unit is installed for over 10 years (check the "replace by" date marked on the side of the unit).

• The Alarm fails to sound the horn loudly when the test button is pressed.

Do not put the Alarm into a fire.

The Alarm should be disposed in a safe and environmentally sound manner at your local recycle centre. Contact your local authority for further advise.

6. Fire Safety Advice

When using household protective devices, basic safety precautions should always be followed, including those listed below

• Please read all instructions.

• Rehearse emergency escape plans so everyone at home knows what to do in case the alarm sounds.

• Use the Alarm Test Button to familiarise your family with the Alarm sound and to practice fire drills regularly with all family members. Alarm test button and fire mode key switch are also provided in RFS1 and RFP6 respectively. Draw up a

floor plan that will show each member at least 2 escape routes from each room in the house. Children tend to hide when they don't know what to do. Teach children how to escape, open windows, and use roll up fire ladders and stools without adult help. Make sure they know what to do if the alarm goes off.

- Constant exposure to high or freezing temperatures, high humidity or a high level of nuisance alarms may reduce the life of the battery.

- Nuisance alarms can be quickly silenced by fanning vigorously with a newspaper or similar to remove the smoke or press the test / hush button.

- To maintain sensitivity to smoke/heat, do not paint or cover the Alarm in any manner; do not permit any accumulation of cobwebs, dust or grease.

- If Alarm has been damaged in any way or does not function properly, do not attempt a repair. Return the Alarm (see Section 9).

- This appliance is intended ONLY for premises having a residential type environment.

- This is not a portable product. It must be mounted following the instructions in this instruction leaflet.

- Smoke/Heat Alarms are not a substitute for insurance. The supplier or manufacturer is not your insurer.

Fire Safety Hints

Store petrol and other flammable materials in proper containers.

Discard oily or flammable rags.

Always use a metal fireplace screen and have chimneys cleaned regularly.

Replace worn or damaged sockets, switches, home wiring and cracked or frayed electrical cords and plugs.

Do not overload electrical circuits.

Keep matches away from children.

Never smoke in bed. In rooms where you do smoke, always check under cushions for smouldering cigarettes and ashes.

Service central heating systems regularly.

Be sure all electrical appliances and tools have a recognised approval label.

This device cannot protect all persons at all times. It may not protect against the three most common causes of fatal fires:

1. Smoking in bed.
2. Leaving children at home alone.
3. Cleaning with flammable liquids, such as petrol.

Further information can be obtained from the Fire Brigade.

Planning Your Escape Route For When The Alarms Sound

1. Check room doors for heat or smoke. Do not open a hot door. Use an alternate escape route. Close doors behind you as you leave.

2. If smoke is heavy, crawl out, staying close to floor. Take short breaths, if possible, through a wet cloth or hold your breath. More people die from smoke inhalation than from flames.

3. Get out as fast as you can. Do not stop for packing. Have a prearranged meeting place outside for all family members. Check everybody is there.

4. Call the Fire Brigade from a neighbour's house or mobile phone. Remember to give your name and address.

5. **NEVER** re-enter a burning house.

7. Alarm Limitations

Limitations of Smoke/Heat Alarms

Smoke/Heat Alarms have significantly helped to reduce the number of fire fatalities in countries where they are widely installed. However independent authorities have stated that they may be ineffective in some circumstances. There are a number of reasons for this:

• Smoke/Heat Alarms will not work if they are not connected to the RFAP. Test regularly and replace the entire Alarm when it fails to operate.

• Smoke/Heat Alarms will not detect fire if sufficient smoke or heat does not reach the Alarm. Smoke/Heat may be prevented from reaching the Alarm if the fire is too far away, for example, if the fire is on another floor, behind a closed door, in a chimney, in a wall cavity, or if the prevailing air draughts carry the smoke or heat away. Installing Smoke/Heat Alarms on both sides of closed doors and installing more than one Alarm as recommended in this leaflet very significantly improve the probability of early detection.

• The Smoke/Heat Alarm may not be heard.

• A Smoke/Heat Alarm may not wake a person who has taken drugs or alcohol.

• The Alarms may not detect every type of fire to give sufficient early warning. They are particularly ineffective with: fires caused by smoking in bed, escaping gas, violent explosions, poor storage of flammable rags and/or liquids, (for example petrol, paint, spirits etc), overloaded electrical circuits, arson, children playing with matches.

• Smoke/Heat Alarms don't last indefinitely. We recommend replacement after 10 years as a precaution.

8. Getting Your Alarm Serviced

If your Alarm fails to work after you have read the sections on "Installation", "Testing and Maintenance" and "Troubleshooting", then contact Customer Assistance at the nearest address given at the end of this leaflet. If it needs to be returned for repair or replacement, the Heat Alarm must be removed from the mounting plate and put in a padded box. Send it to "Customer Assistance" at the nearest address given on the Alarm or in this leaflet. State the nature of the fault, where the Alarm was purchased and the date of purchase.

9. Five Year Guarantee

Brooks guarantees this Alarm for five years from date of purchase against any defects that are due to faulty materials or workmanship. This guarantee only applies to normal conditions of use and service, and does not include damage resulting from accident, neglect, misuse, unauthorised dismantling, or contamination howsoever caused. This guarantee excludes incidental and consequential damage. If this Alarm should become defective within the guarantee period, it must be returned to Brooks, with proof of purchase, carefully packaged, with the problem clearly stated (see Section 9). We shall at our discretion repair or replace the faulty unit.

Do not interfere with the Alarm or attempt to tamper with it. This will invalidate the guarantee, but more importantly may expose the user to shock or fire hazards.

This guarantee is in addition to your statutory rights as a consumer.

10. Troubleshooting

Alarms sound for no apparent reason

• Check for fumes, steam, etc. from the kitchen or bathroom. Paint and other fumes can cause nuisance alarms.

• Check for any sign of contamination such as cobwebs or dust. Clean the alarm as described in Section 5 if necessary.

• Press the Test/Hush button on the Smoke Alarm causing the Alarm (this can be identified as the Alarm with the red light flashing rapidly) – this will silence the Smoke Alarm for 10 minutes (and also silence all other interconnected Alarms in the system).

The Alarm fails to sound when the Test button is pressed

• Check the age of the unit - see the "replace by" label on side of unit.

• Check if the green power on LED is illuminating. If not, check the field wiring.

Conforms to AS1603.3:2018

NSW - Head Office
P.O. Box 7050 Silverwater NSW 1811
4 Pike Street Rydalmere NSW 2116
Ph: 02 9684 1466
Website: www.Brooks.com.au

VIC
9/71 Victoria Crescent, Abbotsford, VIC 3067
Ph: 03 9879 5294

SA
P.O. Box 101 Woodville SA 5011
729A Port Road, Woodville, SA 5011
Ph: 08 8347 0000

QLD
P.O. Box 511 Archerfield QLD 4108
2/49 Boyland Ave Coopers Plains, QLD 4108
Ph: 07 3373 8222

WA
P.O. Box 2114, Midland DC W.A. 6936
6/91 Leach Highway, Kewdale WA 6105
Ph: 08 6262 8095