

# APPLEBY

## OWNER'S MANUAL

### 220~240V AC OPERATED INTERCONNECTABLE HEAT ALARM

#### ( FIXED TEMPERATURE TYPE )



KM 672401  
BS 5446-2:2003



Detector Classification A1

### MODEL: D230HA (With 9V Battery Back-up)

#### Main Features:

- Test Button
- Low Battery Warning
- Battery Back-up
- Alarm / Power Indicator
- Interconnectable (Up to 20 Heat and Smoke Alarms)
- Supplied with Fixing Kit
- Loud 85 dB Alarm Signal

This instruction leaflet contains important information on the correct installation and operation of your heat alarm. Read this leaflet fully before attempting installation and retain for future reference.

#### SPECIFICATION

Power Source:	220-240Vac~ 50-60Hz with 9V battery back-up (battery included)
Battery Back-up:	9V DC Carbon Zinc battery—GOLD PEAK GP1604P, GOLDEN POWER 1604D 1604S, DURACELL MN1604, Energizer 522
Battery Back-up Life:	In the event of a break in the mains supply the battery will give detector operation for 1 year minimum <40mA operation (In Alarm)
Operation Current:	60°C Fixed temperature only
Temperature Rating:	40°C
Maximum Ambient:	Recommended Coverage : 200m <sup>2</sup>
Recommended Coverage :	Recommended Spacing : 13.5m
Recommended Spacing :	Alarm Sound Level : 85 Decibels at 3 metres (10 ft.)
Alarm Sound Level :	

#### LOCATING THE ALARMS

Heat alarms are intended to be supplementary to smoke alarms and should only be placed in areas where smoke alarms cannot be used.

This heat alarm is a multiple station heat alarm and can be connected to other alarms of the same make and type. This interconnect feature allows up to 20 heat Alarms and / or smoke Alarms to be connected together over 150 metres maximum, using the single white wire, and thus allowing all alarms to sound when anyone is activated.

This heat alarm cannot be connected to any other device such as a fire alarm panel.

This heat alarm gives a fire warning when the temperature at the unit reaches 60°C. It is ideal for kitchens, garages, cellars, boiler rooms, attics and other areas where there are normally high levels of fumes, smoke or dust which preclude the use of heat alarms due to the risk of false alarms.

All the heat alarms and smoke alarms should be interconnected to ensure 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. A heat alarm in the closed room may give early warning of fire in that room.

If your dwelling is on a single storey, for minimum protection you should fit a smoke alarm in a corridor or hallway between the sleeping and living areas. Place it as near to the living areas as possible and ensure the audible alarm can be heard when the bedrooms are occupied. See Figure 1 for examples.

If your dwelling is multi-storey, for minimum protection one Smoke Alarm should be fitted at the bottom of the staircase with further alarms fitted on each upstairs landing. This includes basements but excludes crawl spaces and unfinished attics. See Figure 2 for examples.

FIGURE 1 – SINGLE STOREY DWELLING

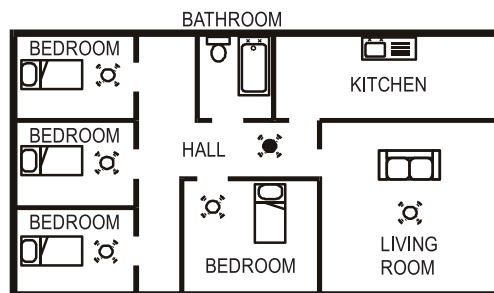
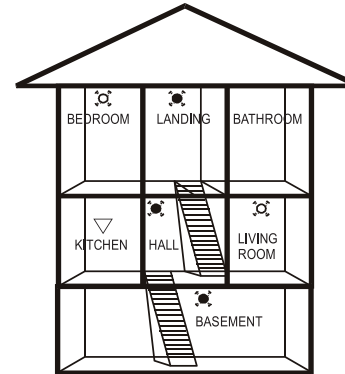


FIGURE 2 – 2/3 STOREY DWELLING



#### KEY

- ☉ MAXIMUM PROTECTION (SMOKE)
- ▽ MAXIMUM PROTECTION (HEAT)
- ☼ MINIMUM PROTECTION (SMOKE)

#### POSITIONING THE ALARMS

##### Ceiling Mounting

As hot smoke rises and spread out, it is advisable to mount on a ceiling in a central position. Avoid areas where there is no air circulation, e.g. corners of rooms and keep away from items which may prevent the free flow of air. Place the unit at least 300mm from and light fitting or decorative object which might obstruct smoke / heat entering the alarm. Keep at least 300mm away from walls. See Figure 3i.

##### Wall Mounting

Do not mount tight into the corners. Put the top edge of your heat alarm between 150 and 300mm below the ceiling. Keep at least 300mm from room corners. See Figure 3i (Wall mounting is not recommended for heat alarms)

##### On a Sloping Ceiling

In areas with sloping or peaked ceilings install your heat alarm 900mm from the highest point measured horizontally because "dead air" at the apex may prevent smoke from reaching the unit. See Figure 3ii.

Figure 3i Positioning the smoke / heat detector

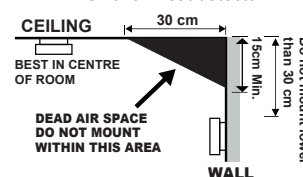
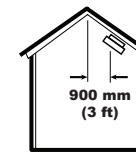


Figure 3ii



Areas to be avoided include the following :-

- Situations where the temperature may fall below 4°C or rise above 40°C
- Humid areas such as bathrooms, kitchens, shower rooms where the relative humidity may exceed 90%
- Near a decorative object, door, light fitting, window molding etc., that may prevent smoke or heat from entering the alarm.

- Adjacent to or directly above hot components such as radiators or wall vents that can effect the direction of air currents.
- In very dusty or dirty environments such as workshops.
- Locate unit at least 1.5m and route wiring at least 1m away for fluorescent light fittings as electrical "noise" and/or flickering may affect the unit. Do not wire into the same circuit as fluorescent lights or dimmers.
- Do not locate in insect infested areas. Insects and contamination on the heat alarm sensor can increase its response time.

#### INSTALLING THE HEAT ALARM

**WARNING** – This heat alarm is mains powered and requires wiring by a qualified electrician in accordance with the current IEE Regulations for Electrical Installations (BS7671).

The circuit used to power the heat alarm must be a dedicated permanent supply that cannot be switched off accidentally by the normal user. Before installing ensure the electrical supply is isolated.

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

The heat alarm will function correctly either as a stand-alone alarm or inter-connected.

All inter-connected heat alarms must be supplied from a single power circuit.

A common neutral must be used for the interconnect to function.

#### Do not connect the Inter-connect wire to Live or Neutral.

- Disconnect the AC main power from the circuit that is going to be used.
- Having established the mounting location install a junction box suitable for locating the termination point. Ensure that there is no other electrical wiring or pipe work in the area adjacent to the mounting surface.
- Unlock the detector unit from the base by push back the snap lock with a screw driver and turn the alarm unit anti-clockwise to release it. See Figure 5 and Figure 6
- Fix mounting plate in position.
- Strip the Live / Neutral and Inter-connect (if used) wires.
- Connect the wires correctly. If the heat alarms are to be inter-connected, connect the brown wire. For Alarm that are used as single station, DO NOT CONNECT THE BROWN WIRE TO ANYTHING. Ensure the screws are fully tightened. See Figure 6.

• The alarm must be wired in accordance with National wiring codes.

**LIVE Wire** : connect to house wires coloured Brown, Red or marked with L.

**NEUTRAL Wire** : connect to house wires coloured Blue, Black or marked with N.

**INTERCONNECT Wire** : connect to the third wire. If you are not interconnecting to other units, do not connect any wire to this terminal.

• Insert a 9V battery firmly into battery compartment on the rear of the alarm. NOTE POLARITY OF CONNECTIONS. Ensure the metal tab is fully depressed when the battery has been fitted.

**NOTE – For the safety of the end user the heat alarm cannot be fitted without its battery.**

- Before assembly to base plate test the correct operation of the heat alarm (operating from the battery only) by depressing the test button on the front of the alarm. The unit should emit a loud pulsating alarm.

- Assemble alarm unit onto the mounting plate by turning the alarm unit counter-clockwise. See Figure 4

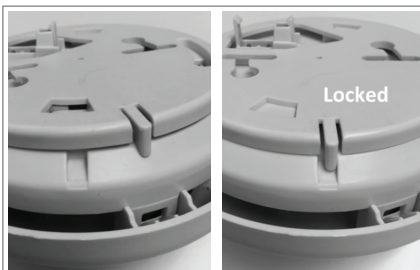


**Figure 4**  
Plug the AC QUICK CONNECTOR into the back of the alarm.

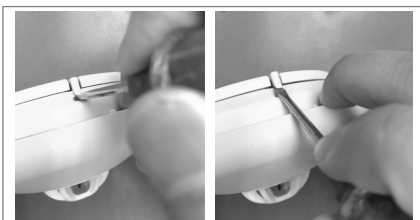
- Restore the AC supply by plugging the AC QUICK CONNECTOR into the back of the alarm (see Figure 4). Make sure that the locks on the connector snap into place.

- Test the correct operation of the heat alarm by depressing the test button on the front of the detector. The unit should emit a loud pulsating alarm.

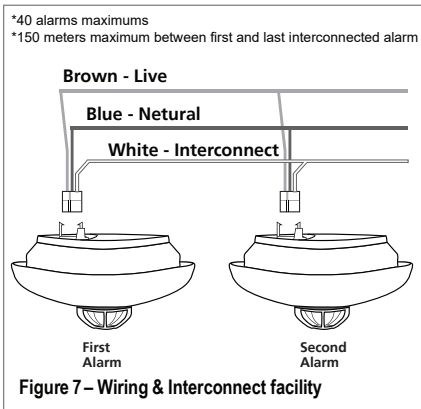
- Should use 2.1mm<sup>2</sup> wire for connection.



**Figure 5**  
Turn the alarm units clockwise until the snap lock engages.



**Figure 6 – Push Back the snap lock and turn the Alarm anti-clockwise**



**OPERATING YOUR HEAT ALARM**

Once the heat alarm has been installed a small GREEN indicator light (LED) should be visible through the alarm grill indicating that AC supply is healthy. A RED indicator light (LED) should also flash approximately once a minute to indicate the battery is healthy and the unit is operating properly.

When the heat alarm senses temperature above 60°C (plus or minus a few degrees), the unit will emit a loud (85dB) pulsating alarm until the temperature drops below 60°C. During the alarm condition, the RED indicator light (LED) will flash quickly.

**TESTING YOUR HEAT ALARM**

It is recommended that you test your heat alarm once a week to ensure the detector is working correctly. Push and hold the test button for approximately 3 seconds. A loud pulsating alarm should sound and a RED flashing indicator light (LED) can be seen to indicate the correct function.

NOTE – for multiple interconnected smoke / heat alarms, only the RED indicator light (LED) of the originating unit will flash rapidly. All other units in the interconnect system will sound an alarm but their RED indicator light (LED) will NOT flash. Test each alarm checking that the alarm is triggered on all other alarms installed.

**MAINTAINING YOUR HEAT ALARM**

A fresh battery should last for approximately one year. If the heat alarm emits a short 'beep' once a minute the battery is at the end of its life and should be replaced immediately. This low voltage warning will be given for at least 7 days. If the red indicator light (LED) does not flash every minute then replace the battery.

Clean your alarm at least once every six months to prevent dust build up. This can be done using a vacuum cleaner with the brush attachment. Clean gently around the front grilled section and sides.

WARNING : The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

**BATTERY REPLACEMENT**

Always TURN OFF the A.C. supply to the heat alarm before replacing the battery. Replace the battery at least once annually, or immediately when the low battery signal sounds once a minute, even though the heat alarm is receiving A.C. power.

Test the alarm for correct operation using the test facility whenever the battery is replaced.

WARNING: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. THE USE OF BATTERIES OTHER THAN THOSE RECOMMENDED ON THE BACK OF THE HEAT ALARM MAY BE DETRIMENTAL TO ITS OPERATION

The battery should only be replaced by a qualified electrician or similarly qualified person.

- Turn off the A.C. power supply to the heat alarm.
- Gently unlock the detector unit from the base by push back the snap lock with a screw driver and turn the alarm unit clockwise to release it. See Figure 5 and Figure 6 Remove the battery from the compartment.
- Insert a new, healthy 9V battery. NOTE POLARITY OF CONNECTIONS. Ensure the metal tab is fully depressed when the battery has been fitted
- Using the Push-to-Test button, test the heat alarm to verify 9V DC battery back-up. See "TESTING YOUR HEAT ALARM"
- Reattached the heat alarm to the mounting plate by rotating the alarm unit counter-clockwise until the it snaps into place. (see Figure 4)
- Turn on the AC power and test the heat alarm using the Push-to-Test button. See "TESTING YOUR HEAT ALARM"

**IMPORTANT SAFEGUARDS**

Installation of your heat alarm is only one step in your safety plan. Other important steps should be taken to further improve your safety:-

Install the heat alarm properly, following this instruction leaflet

- Test your heat alarm weekly
- Replace the battery immediately once depleted
- Do not smoke in bed
- Keep matches & lighters away from children
- Store flammable materials in a proper manner and never use them near naked flames or sparks
- Maintain emergency equipment such as Fire Extinguishers, escape ladders etc and ensure all occupants know how to use them correctly.
- Plan an escape route/s from your building in advance and ensure all occupants are aware of them. Re-enforce this awareness periodically through-out the year.
- Make sure escape routes remain free of any obstructions.

WARNING: IF THERE IS ANY QUESTION AS TO THE CAUSE OF AN ALARM IT SHOULD BE ASSUMED THAT THE ALARM IS DUE TO AN ACTUAL FIRE AND THE DWELLING SHOULD BE EVACUATED IMMEDIATELY.

THIS PRODUCT IS A SEALED UNIT AND CANNOT BE REPAIRED – IF THE UNIT IS TAMPERED WITH IT WILL INVALIDATE THE WARRANTY. IF THE UNIT IS FAULTY PLEASE RETURN IT TO YOUR ORIGINAL SUPPLIER WITH YOUR PROOF OF PURCHASE.

**LIMITATIONS OF THE HEAT ALARM**

- Heat alarms are not designed to protect life safety against fire and smoke. In most fires, hazardous levels of toxic gases and smoke can build up before the heat alarm will

operate. In cases where life safety is an issue, heat alarms should only be used to provide an added source of protection.

- Heat alarms cannot provide an alarm if heat does not reach the alarm. Therefore, heat alarms may not sense fires starting in chimneys, walls, on roofs, on the other side of a closed door or on a different floor.
- Home fires develop in different ways and are often unpredictable. No one type of alarm is always best, and a given alarm may not always provide warning of a fire.

**YOUR HEAT ALARM WARRANTY**

These heat alarms are warranty to be free from defects in materials and workmanship under normal use and service for a period of six years from date of purchase. The company will not be obligated to repair or replace parts which are found to be in need of repair because of misuse, damage or alterations occur after the date of purchase. Send the heat alarm with proof of purchase, postage and return postage prepaid, to local distributor. The liability of the company arising from the sale of this heat alarm shall not in any case exceed the cost of replacement of heat alarm and in no case shall the company be liable for consequential loss or damages resulting from the failure of the heat alarm.

ELECTRIUM SALES LTD. SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE, OR ANY SPECIAL INCIDENTAL, CONTINGENT OR CONSEQUENTIAL DAMAGE OF ANY KIND RESULTING FROM A FIRE. THE EXCLUSIVE REMEDY FOR BREACH OF THE LIMITED WARRANTY CONTAINED HEREIN IS THE REPAIR OR REPLACEMENT OF THE DETECTIVE PRODUCT AT ELECTRIUM SALES LTD. OPTION. IN NO CASE SHALL ELECTRIUM SALES LTD.'S LIABILITY UNDER ANY OTHER REMEDY PRESCRIBED BY LAW EXCEED THE PURCHASE PRICE. YOUR HEAT ALARMS IS NOT A SUBSTITUTE FOR PROPERTY, DISABILITY, LIFE OR OTHER INSURANCE OF ANY KIND. APPROPRIATE COVERAGE IS YOUR RESPONSIBILITY. CONSULT YOUR INSURANCE AGENT.

This does not affect your statutory rights. This alarm is only suitable for single occupancy private dwellings only and not intended for multi occupancy private dwellings or commercial or industrial dwellings.

Waste electrical products should not be disposed of with normal household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice. New regulation will encourage the recycling of Waste from Electrical and Electronic Equipment (European "WEEE Directive" effective August 2005).

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