User Manual

HiSPEC
LIGHTING • FIRE & CO DETECTION

Model: HSSA/PE/RF & HSSA/HE/RF
HSSA/PE/FF & HSSA/HE/FF

220-240V AC Operated Fire Alarms
with 9v Replaceable Battery Backup

INTRODUCTION

IMPORTANT: If you are installing this product for use by others, you must leave this manual (or a copy of it) for the end user.
The Fast Fix range with 9v replaceable battery backup consist of Smoke alarms and Heat alarms which can be interconnected to other alarms of the same type. This interconnect feature allows up to 20 Domestic Fire Safety Devices to be connected together over 150 metres maximum, and thus allowing all alarms to sound when any one is activated. Alternatively, the alarms can be wirelessly interconnected using a radio frequency version.

SPECIFICATION

Power Supply:	220-240V, 50-60Hz 9v Battery (As backup)
Power Consumption:	≤40 mA (In Alarm)
Detection Type:	Optical Smoke, Fixed Heat Thermistor
Activation Temp:	60°C
Temperature Ambient:	0°C to 40°C
Humidity Ambient:	10% to 90% (non-condensing)
Max Wire/Wireless Interconnection:	20 Units
Max Interconnection Distance:	150m
Max Wireless Distance:	30m (Enclosed) 80m (Open)
Alarm Sound Level:	85 Decibels at 3m
Max Operational Life:	10 Years
Approved by BSI to:	BS EN 14604:2005, BS 5446-2:2003
Associate Standard:	BS 5839-6:2019 GRADE D2

CLASS II APPARATUS
Detector Classification A1

FAST FIX

bsi
KM 792789
KM 792788
BS 5446-2:2003
BS EN14604:2005

DIAGRAM

Fig.1 Front View (Heat Alarm)
Alarm unit: Ø 123mm

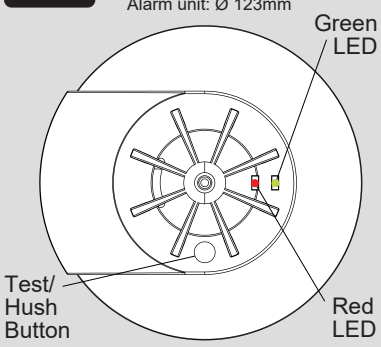


Fig.2 Front View (Smoke Alarm)
Alarm unit: Ø 123mm

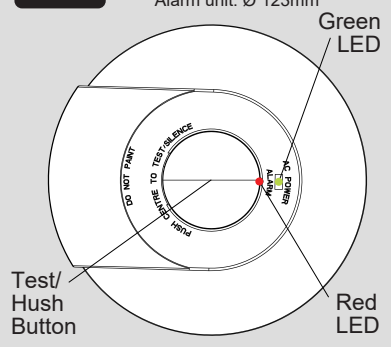


Fig.3 Side View (Heat Alarm)
Alarm unit: 63 mm

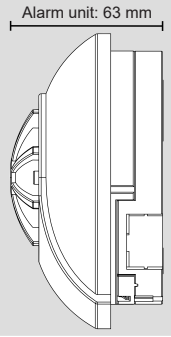


Fig.4 Side View (Smoke Alarm)
Alarm unit: 51 mm

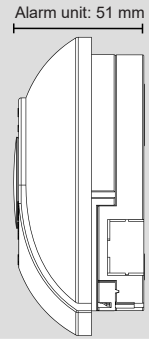
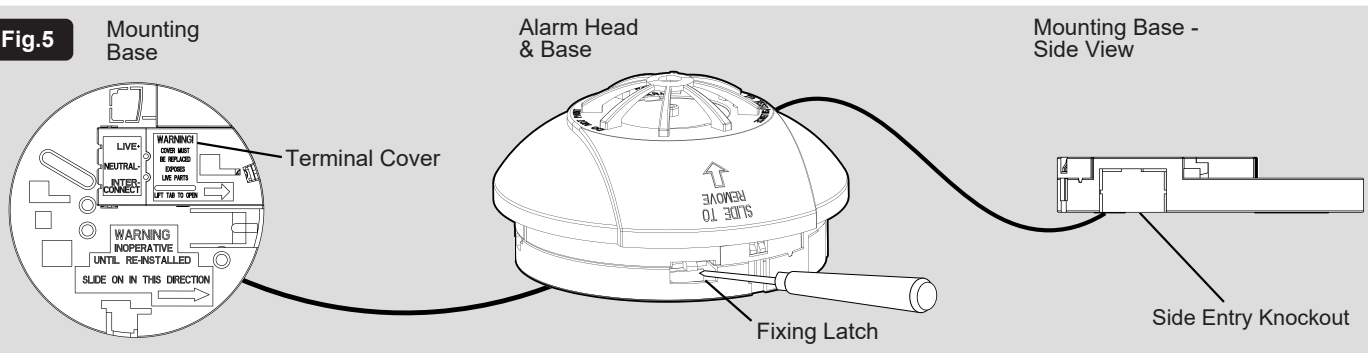


Fig.5



POSITIONING OF THE ALARM

• Heat alarms are intended to be supplementary to smoke alarms and should only be placed in areas where smoke alarms cannot be used.
• All Fire 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.
A heat alarm gives a fire warning when the temperature at the unit reaches 60ºC. 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 smoke alarms due to the risk of false alarms.
• If your dwelling is on a single storey, for minimum protection you should fit an alarm in a corridor or hallway between the sleeping and living areas (incl. Kitchens). 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 8** for examples.
• If your dwelling is multi-storey, for minimum protection one 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 8** for examples.
NOTE: For maximum protection an alarm should be fitted in every room (except bathrooms).

Ceiling Mounting
• As hot smoke rises and spreads 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 300 mm from any light fitting or decorative object which might obstruct smoke entering the alarm. Keep at least 300 mm away from walls. See **Figure 6**.

Wall Mounting
• Do not mount tight into the corners. Put the top edge of your fire alarm between 150 and 300mm below the ceiling. Keep at least 300mm from room corners. See **Figure 6.**

On a Sloping Ceiling
• In areas with sloping or peaked ceilings install your alarm in accordance with **Figure 7** because “dead air” at the apex may prevent smoke/heat from reaching the unit.

Fig.6 Positioning the smoke/heat alarm

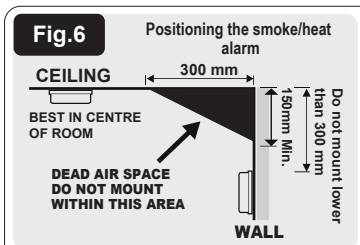


Fig.7

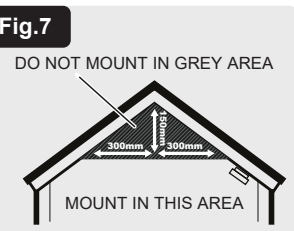
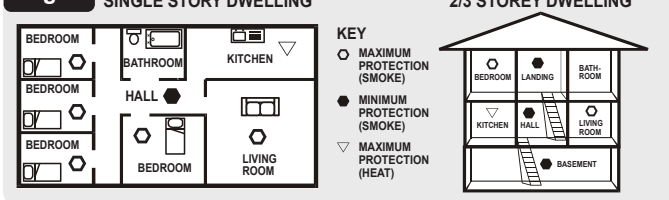


Fig.8



AVOID THESE LOCATIONS

• Situations where the temperature may fall below 0°C or rise above 40°C for extended periods.
• Humid areas such as BATHROOMS, SHOWER ROOMS where the relative humidity may exceed 90% as vapour will cause false alarms.
• Near a DECORATIVE OBJECT, DOOR, LIGHT FITTING, WINDOW MOULDING etc.,that may prevent hot air from entering the alarm.
• Adjacent to or directly above hot components such as RADIATORS or WALL VENTS that can affect the direction of air currents.
• In VERY DUSTY OR DIRTY environments such as workshops.
• Locate alarm at least 1.5m and route wiring at least 1m away from FLUORESCENT-LIGHT FITTINGS as electrical ‘noise’ and/or flickering may affect the alarm. Do not wire into same circuit as fluorescent lights or dimmers.
• Do not locate in INSECT INFECTED AREAS, insects and contamination on the alarm sensor can increase its response time.

INSTALLATION - WIRING

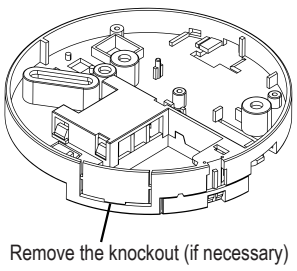
1 **Lift tab to remove terminal cover**
See **FIG.5**

2 For side entry wiring, remove the knockout where necessary. SEE **FIG.9**

INSTALLER PLEASE NOTE:

WARNING – This alarm is mains powered and requires wiring by a qualified electrician in accordance with the current IET Wiring Regulations (BS7671).

Fig.9



Remove the knockout (if necessary)

WIRING PRECAUTIONS:

- It is important to note that this fire alarm is designed to be interconnected with other Hispec fire safety devices. Connecting it with different brands or models may cause damage or pose risks like electric shock or fire hazards.
- It can be interconnected with up to 39 fire safety devices in total, with a maximum of 20 devices/alarms for wired connections and 20 devices/alarms for wireless connections.
- The alarm has four labeled terminals: Interconnect, Neutral, Earth, and Live. Proper wiring is crucial to ensure correct functionality and to avoid damage that would void the warranty. Please refer to **Figure 10** for guidance on the appropriate wiring.
- When interconnecting fire alarms, ensure that the length of the wire does not exceed 150m, and the spacing between interconnected alarms should not exceed 30m per alarm. The minimum wire cross-section required is 0.75mm². All interconnected fire alarms should be connected to the same final sub-circuit.
- DO NOT USE EARTH AS INTERCONNECT.
- DO NOT CONNECT LIVE 230v to the interconnect terminal.
- Connect the IC wire ONLY to the IC terminal of other Hispec Fire Safety Devices.
- Fire Alarms should only be connected to individual dwellings as excessive nuisance activations can cause distress.
- This product is specifically designed to be connected to 230V, 50Hz AC supply.
- It is important to avoid connecting it to power sources that utilise an inverter, such as a PV solar panel, as this may result in Total Harmonic Distortion (THD) issues.

WARNING: LOOSE NEUTRAL CAN RESULT IN DETECTOR FAILURE.

If the RED LED on the front of the alarm flashes 3 times per second this means there is a loose neutral connection within this alarm circuit. Please ensure all neutral conductors are tightened in their terminals correctly and check for any breaks in the cable run. A strong neutral connection is imperative to avoid an overcurrent within the internal detector’s circuitry.

MOUNTING & TERMINATION

Before installing the fire alarm, it is crucial to thoroughly review the provided instructions. The fire alarm is composed of two parts: the mount base assembly and the alarm unit. It is recommended to keep the alarm unit protected by a plastic dust cover; and separate it until the building commissioning phase. This phase usually involves activities like sanding, preparing for painting, actual painting, and floor laying.

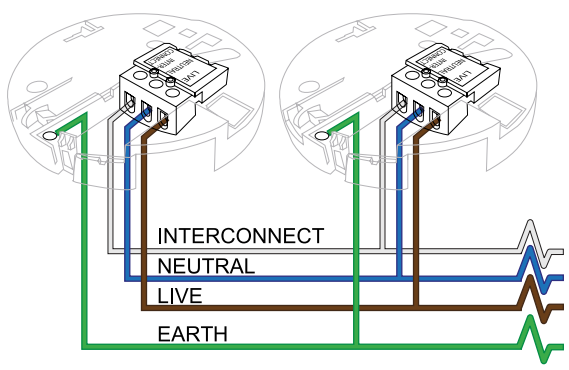
Please follow these steps to mount the fire alarm:
1. Choose a suitable location on the ceiling that complies with safety regulations.
2. Separate the mounting base from the alarm head.
3. Strip the Live, Neutral, and Interconnect (if applicable) wires according to the specified strip length shown in **Figure 10**.
4. Remove the terminal cover to access the terminals, as depicted in **Figure 5**.
5. Connect the wires to the corresponding terminals on the flush mounting base, as shown in **Figure 10**. Make sure to securely tighten the screws.
Note: *If you are interconnecting the fire alarms via radiofrequency, do not link out the IC terminals on the alarm mounting base, leave them empty. The interconnect terminal of the fire alarm is only meant for direct hard wire connections with other Hispec Fire Safety Devices.*
6. Reattach the terminal cover.
7. Securely mount the base to the ceiling using the screws provided.

Fig.10 Interconnecting Fire Alarms

TERMINAL	
L:	Live
⏚:	Earth or Loop
N:	Neutral
IC:	Interconnect

20 alarms maximum

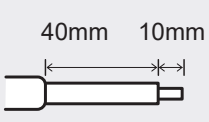
150 metres maximum between first and last interconnected alarm unit



A minimum cable size of 0.75mm² and rated at 250v should be used.

Both the interconnect and neutral wires must be connected to enable the hardwired interconnection.

Cabling and Wiring



DUST COVER

The Fire Alarm is enclosed in a plastic dust cover for the following reasons:
1. To provide protection for the alarm unit from dust during the building construction phase.
Keep the alarm head, while in the dust cover, separate until the building commission phase to prevent dust accumulation and battery degradation.
During the commissioning process, it is necessary to remove the dust cover and securely attach the alarm unit to the mounting base.

COMMISSIONING

STEPS TO ACTIVATE THE FIRE ALARM:
1. Remove the alarm unit from the dust cover.
2. Fill out the ‘Date of Installation’ Label and stick to the side of the alarm.
3. Insert the 9v Battery into the alarm head and ensure correct polarity.
4. Set the dipswitches on the alarm mounting base for Wireless Pairing (RF Versions Only) SEE SECTION – RF WIRELESS INTERCONNECTION FOR FURTHER DETAILS
5. Align the fixing points on the head unit with the fixing latch on the mounting base. (**see Fig.5**)
6. Slide and firmly push the alarm unit until it clicks into place on the mounting base.
Note: *The battery will provide backup power to the alarm when inserted into the alarm head It is designed to provide a minimum 1-year backup during regular operation.*
7. The alarm is now securely attached to the mounting base, switch the permanent mains supply on to power the alarm. A green LED will be illuminated on the front to indicate mains power, a red flashing LED will illuminate every 40-60 seconds to signal normal operation. If any other sequence of flashing LEDs occur, refer to the INDICATION AND ACTION section of this manual.
8. Press and HOLD the test button for up to 20 seconds, the alarm will sound and trigger any other interconnected units within this period.
Note: *After the Test/Hush button has been pressed, wait 10 minutes before any additional testing is conducted to avoid any abnormal responses as the smoke alarm is less sensitive to smoke during this period.*

WARNING: In case you encounter frequent false alarms, we recommend relocating the device away from any potential fume sources. If the alarm continues to trigger false alarms even when there is no smoke present, it might require maintenance or cleaning.

OPERATION

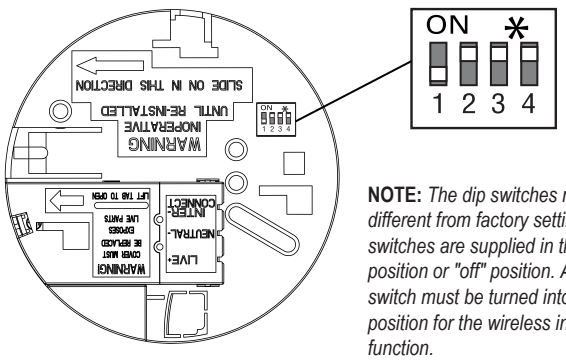
This alarm has a built-in feature to detect the power source.
If the Live (L) connection is present and the alarm is activated, it operates as a 220-240V mains-powered fire alarm. In this case, the battery acts as a backup and lasts for a minimum of 1 year from installation.
If mains power is not present and the alarm is activated, it relies solely on battery power. The battery, under normal conditions, lasts for 30 days.
NOTE: *The alarm must be replaced after 10 years operation.*

WARNING: SLIDING THE ALARM HEAD ONTO THE MOUNTING BASE WITHOUT MAINS POWER CONNECTED WILL DRAIN THE BATTERY. CONNECT AC MAINS POWER ASAP TO PREVENT THE BATTERY FROM DRAINING.

RF WIRELESS INTERCONNECTION (HSSA/HE/RF & HSSA/PE/RF)

WIRELESSLY PAIRING THE ALARM

- Ensure power to the mounting base is switched off.
- Set the dip switches in the **SAME** direction on each mounting base.



NOTE: *The dip switches must be set different from factory settings, The dip switches are supplied in the "1,2,3,4" position or "off" position. At least one switch must be turned into the "on" position for the wireless interlink to function.*

There are a MAXIMUM of 16 combinations

When testing, press and **HOLD** the test button for 20 seconds. All wirelessly paired alarms will sound within 20 seconds.

TESTING

It is recommended that you test your alarm once a week to ensure the alarm is working correctly. Push and hold the test button for approximately 3 seconds (at least 20 seconds to trigger other alarms). A loud pulsating alarm should sound and a RED indicator light (LED) will flash at the same time.

Note: *For multiple interconnected 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.*

WARNING: Never use an open flame of any type to test your alarm.

WARNING: Do not apply excessive force on the "HUSH/TEST" button this may damage the smoke alarm and may void the warranty.

Featured LED and Alarm Signal

Fire Warning Signal
Red Rapid Flashing 85dB
The fire alarm will sound a loud alarm (85 dB) and the red LED will flash rapidly. This will continue until the air is cleared.

Standby
Red Cycle 40-60 sec
The red LED flashes once every 40-60 seconds to indicate the fire alarm and battery are functioning correctly.

Memory Function
Red Cycle 4 sec
If one of the alarm indicators (RED LED) is flashing every 4 seconds, it indicates that a fire alarm has previously been activated.

Low Battery
Red Cycle 40-60 sec 85dB
The heat alarm indicates a low battery by flashing the red LED once and emitting a chirp every 40-60 seconds.

Green LED

Green LED
Green AC Powered
The green LED is illuminated when the mains power (220-240V) is on. If the fire alarm is powered only by battery. The Green LED will not be illuminated.

HUSH OR SILENCE FUNCTION

• This Fire Alarm has a built-in Hush or Silence feature incorporated into the Test/Hush button. If cooking or other non-hazardous sources cause the alarm to sound, it can be temporarily silenced by pressing the Test/Hush button for 1 second. The alarm will then enter a dormant period for 10 minutes.
After the 10 minute dormant period, the Fire Alarm will resume normal operation.
Note: *After the Test/Hush button has been pressed, wait 10 minutes before any additional testing is conducted to avoid any abnormal responses as the smoke alarm is less sensitive to smoke during this period.*
• This Fire Alarm has a self-diagnosis. If the smoke alarm detects the battery is low and/or an internal fault, it will chirp. This alarm can be temporarily silenced by holding the Test/Hush button for 1 second. The alarm will not chirp for 10 hours but the alarm will continue to function. It is recommended to replace the alarm as soon as possible after this period of time.
Note: *Silence will not affect the basic fire warning functions of a Fire Alarm. During the silenced period, if the alarm detects fire, it will still emit a fire signal.*

Fig.11

False alarm (False Alarm) → **HUSH 10 Minutes**

Low Battery and/or **Fault Alarm** → **SILENCE 10 Hours**

IMPORTANT SAFEGUARDS

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

- Install the alarm properly, following this instruction leaflet
- Test your alarm weekly
- 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 throughout the year. See below Planning:
  - Create a floor plan that identifies all doors and windows, as well as at least two escape routes from each room. Note that for second-storey houses, rope or chain ladders may be necessary.
  - Hold a family meeting to discuss and review your escape plan, ensuring that each member understands what to do in case of a fire.
  - Designate a predetermined location outside of your home where all family members can meet in the event of a fire.
  - Ensure that everyone is familiar with the sound of the heat alarm and conduct regular practice drills of leaving the home when it goes off.
  - Conduct fire drills at least every six months, including night-time drills.
  - Practicing your escape plan allows you to test its effectiveness before an actual emergency. It is crucial that every member of the household is aware of the plan, as they may need to act quickly and independently in the event of an emergency.

IN CASE OF FIRE

Developing and practicing a plan of escape is essential for ensuring the safety of your household in the event of a fire. When the Fire Alarm sounds, it is crucial that you follow the steps outlined below:

• Evacuate the building immediately using your pre-determined escape plan. Time is crucial, so do not waste time getting dressed or retrieving valuables.
• While exiting, check the surface of internal doors before opening them. If the door feels hot or smoke is seeping through cracks, do not open it. Instead, use an alternative exit. If the door feels cool, gently open it, placing your shoulder against it, and be prepared to swiftly close it if heat or smoke rush in.
• If the air is smoky, stay close to the floor and try to breathe shallowly through a damp cloth if available.
• Once outside, proceed to your designated meeting point and ensure that all family members are present.
• Call the Fire and Rescue Services from a neighbour's home, not from your own.
• Do not re-enter your home until officials confirm that it is safe to do so.

For additional information on fire safety, please contact your local Fire and Rescue Services.

MAINTENANCE, REPAIRS, AND SERVICE

To ensure your fire alarm is properly maintained, repaired, and serviced, it is crucial to follow the appropriate guidelines. Please review the information provided below:

Maintenance:

To optimise performance, it is advised to conduct a monthly inspection of your heat alarm. Check for any accumulation of dirt, dust, or insects. You can use a vacuum cleaner or a soft brush to gently remove any debris. Additionally, wiping the alarm with a damp cloth will help deter insects. After cleaning, always test the fire alarm to confirm it is functioning correctly.

Repairs / Servicing:

If you encounter a defective fire alarm, it is important not to attempt any repairs yourself. The unit does not contain parts that can be serviced by the user. Instead, it is recommended to seek professional assistance for replacement or servicing.

REMOVING THE ALARM HEAD FROM THE MOUNTING BASE:

- Switch off mains AC power which is powering the alarm.
- Using a small insulated screwdriver, push the fixing latch and slide the alarm head in the direction of the arrows as shown in **FIG.5.**

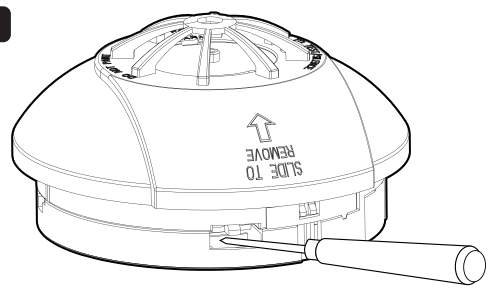
BATTERY REPLACEMENT

It is necessary to replace the battery on the fire alarm periodically due to natural degradation. The battery should be replaced when the alarm emits a short chirp every 40-60 seconds, this is typically on a annual basis. 9v Batteries can be purchased from local supermarkets or DIY shops.

WARNING: *Danger of explosion if the battery is incorrectly replaced, the use of batteries other than those recommended on the back of the fire alarm may be detrimental to its operation.*

1.Turn off AC Mains power to the alarm
2.Using a small screwdriver, find the fixing latch on the side of the alarm and push the latch upwards. The alarm can now slide away from the mounting base (**SEE FIG 12**)
3.The battery should now be revealed on the back of the alarm head.
4.Remove and replace with a BRAND NEW 9v Alkaline or Carbon Zinc battery we recommend using a brand such as Duracell or Energizer.
5.Ensure the battery is securely fixed into position and slide the alarm head back onto its mounting base
6.Turn AC Mains power back on and test your alarm by referring to the TESTING Section of this Instruction Manual.

Fig.12



LIMITATION OF FIRE ALARMS

- 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. Heat alarms should only be used to provide an added source of protection.
- Fire alarms cannot provide an alarm if heat/smoke does not reach the unit. Therefore, fire 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.
- Standard fire alarms do not effectively alert individuals who have hearing impairments. For those with hearing impairments, it is advised to use specialised devices such as Hispec Strobe Lights and Vibrating Pads to ensure everyone in the building is alerted during a fire emergency.
- If the smoke alarm is located outside of the bedrooms or on a different floor, it may not wake up individuals who are deep sleepers. To enhance safety, it is recommended to install a smoke alarm in each bedroom for added protection.
- By being aware of these limitations, individuals can take proactive measures to optimise the effectiveness of their fire alarms and prioritise their safety by taking appropriate precautions against the risks of fire.

INDICATION AND ACTION

If you notice any signals from the fire alarm and you're unsure about its state, consult the provided table below for the "LED Indicator" and "sounder" of your heat alarm. This table will assist you in identifying the current status of the alarm and the necessary steps to take.

Should you need additional help, we suggest contacting our technical support for any inquiries. The contact details can be found in this manual.

STATUS	LED INDICATOR	SOUNDER	ACTION REQUIRED
Standby Mode (Powered by Battery only)	Green LED not illuminated Red LED 1 flash every 40-60 sec	None	Fire alarm in standby condition, powered by internal battery power. Connect the fire alarm to AC Power to complete installation.
Standby Mode (240V AC mains powered)	Green LED illuminated Red LED 1 flash every 40-60 sec	None	Fire alarm in standby condition, powered by 240V AC mains and backup battery. No action required.
Fire Alarm Mode	Red LED flashing rapidly until fire is clear	Chirping rapidly until fire is clear	Fire alarm detects fire. See section - "In case of fire"
Test Mode	Red LED flashing rapidly (flash pattern sync with the sounder)	Chirping rapidly (Chirp pattern sync with the Red LED)	Release test button to cease test mode.
Low Battery Warning	Red LED 1 flash every 40-60 sec	1 short chirp every 40-60 seconds (Chirp pattern sync with the Red LED)	The battery is low. Check Section - "Battery Replacement" for further details.
Memory Function	Red LED 1 flash every 4 seconds, lasting 72 hours	None	This indication will last for 72 hours. Then, it will automatically resume to standby mode. No action required.
Unit Fault	Yellow LED 2 short flashes every 40-60 seconds	2 short chirps every 40-60 seconds (Chirp pattern sync with the Yellow LED)	The alarm unit is faulty. Check Section - "Maintenance, Repairs, and Service" for further instruction.
Loose Neutral Contact	Red LED 3 short flashes every second	None	There is a loose neutral connection within this alarm circuit. Ensure all neutral conductors are tightened in their terminals correctly and check for any breaks in the cable run.

WARRANTY

WARNING: DO NOT ATTEMPT TO OPEN THE HOUSING.

This alarm is in warranty under normal use and service for a period of 5 years (excluding battery) 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 present after the date of purchase. If the alarm is proven to be faulty, within the warranty period, it must be returned to where it was purchased, carefully packaged, with the fault clearly stated along with proof of purchase. The liability of the company arising from the sale of this alarm shall not in any case exceed the cost of replacement of alarm and in no case shall the company be liable for consequential loss or damages resulting from the failure of the alarm.

CE	UKCA
HiSPEC Electrical Products Ltd., Chorley, Lancs, England 18 Technical Documentation Held by Manufacturer	HiSPEC Electrical Products Ltd., Chorley, Lancs, England 24 Technical Documentation Held by Manufacturer

BS EN14604:2005 + AC:2008

Smoke Alarm Devices: HSSA/PE/FF & HSSA/PE/RF

Fire Safety

Nominal activation conditions/ sensitivity, response delay (response time) and performance under fire condition	Pass	Vibration resistance	Pass
Operational reliability	Pass		
Tolerance to voltage supply	Pass	Humidity resistance	Pass
Response delay and temperature resistance	Pass	Corrosion resistance	Pass
		Electrical stability	Pass

CE	UKCA
Heat Alarm Devices: HSSA/HE/FF HSSA/HE/RF	Heat Alarm Devices: HSSA/HE/FF HSSA/HE/RF

HISPEC ELECTRICAL PRODUCTS 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 HISPEC ELECTRICAL PRODUCTS LTD. OPTION. IN NO CASE SHALL HISPEC ELECTRICAL PRODUCTS LTD.'S LIABILITY UNDER ANY OTHER REMEDY PRESCRIBED BY LAW EXCEED THE PURCHASE PRICE. YOUR ALARM 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 residential dwellings and is not suitable for commercial or industrial use.

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).

Unit 21, Drumhead Road ,
Chorley North Business Park,
Chorley, PR6 7BX
customerservices@hispec.co.uk | 01257 262 197
www.hispec.co.uk

09082024