# HiSPEC
## LIGHTING • FIRE & CO DETECTION

RF PRO

CLASS II APPARATUS

UK CA    CE

FAST FIX

BS EN14604:2005+AC1:2008
BS 5446-2:2003

## MODEL: HSSA/HCO/RF10-PRO

**220 ~ 240V AC OPERATED COMBINED HEAT & CARBON MONOXIDE ALARM WITH RECHARGEABLE BACKUP BATTERY AND WITH WIRELESS INTERCONNECTION**

### MAIN FEATURES:
- Wireless Interconnection via self Learn pairing
- Wireless interconnect max. 20 Hispec RF-PRO smoke / heat alarms
- 10 year Sealed Rechargeable Battery for Backup
- Hush Feature
- Power & Alarm Test Button
- Low Battery Warning
- Loud 85db alarm signal
- Supplied with fixing kit
- Pre-warning fault signal
- Compatible with Control Unit HSSA/CU/RF10-PRO

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

### SPECIFICATION

| | |
|---|---|
| Heat Sensor: | Thermistor Class A1 detection – Alarmis triggered at 60ºC |
| Carbon Monoxide Sensor: | Electrochemical |
| Power Source: | 220-240Vac~ 50-60Hz with 3V battery back-up (battery included) |
| Battery Back-up: | 3V Sealed Rechargeable Lithium Batteries (BA3V ML2032-T6) |
| Battery Back-up Life: | 10 Year under normal usage. In the event of a break in the mains supply the battery will give detector operation for 1 month minimum |
| Display: | Indicates Heat or CO |
| Operation Current: | <40mA operation (In Alarm) |
| Temperature Rating: | 60ºC Fixed temperature only |
| Maximum Ambient: | 40ºC |
| Humidity Range: | 10% - 90% |
| Recommended Spacing: | 13.5m |
| Maximum Distance from wall: | 7.7m |
| Alarm Sound Level: | 85 Decibels at 3metres (10ft) |
| Approvals: | BS EN14604:2005+AC1:2008, BS 5446-2:2003 |
| Interconnect Facility: | 20 detectors over 150 metres maximum |
| Wireless Connection: | 20 units |
| Wireless Distance: | 20metres Indoor Area 80metres outdoor Area |

### IMPORTANT SAFETY NOTICE

| | |
|---|---|
| WARNING | This alarm is mains powered and requires wiring by a qualified electrician in accordance with the current IEE Regulations for Electrical Installations (BS7671). |
| WARNING | To prevent injury, this alarm must be securely attached to the ceiling/wall in accordance with the installation instructions. |
| WARNING | Do not connect the Interconnect wire to Live or Neutral. |
| WARNING | Connection to the EARTH terminal is not needed for correct functioning of the Alarm. It is just for conveniently terminating any earth supply wire coloured green or green/yellow. It does not provide protective Earth for the Alarm. |
| WARNING | BATTERY IS NON-REPLACEABLE The secondary backup power for the smoke alarm is supplied by a non-removable rechargeable lithium battery. The battery is sealed in the smoke alarm and cannot be replaced. If the red indicator light (LED) does not flash every minute then replace this alarm. |
| 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 |
| 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. |
| NOTE | 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. |

### LOCATING THE SMOKE ALARM
The COMBI Heat and CO alarm has a dual protection sensor for protection against Fire and Carbon Monoxide. It is ideal to be installed in kitchens, garages, and other areas where there are normally high risk levels of carbon monoxide leaks. It is supplementary to smoke alarms it can detect fire where, smoke alarms cannot be used.

This COMBI should be fitted in room that is containing a fuel burning appliance, every sleeping room or rooms with flueless or open-flued appliance and; remote rooms in which the occupant spend considerable time during the day.

### POSITIONING THE SMOKE ALARM
Carbon Monoxide has a similar density to warm air and can be fitted in various locations.

**Apparatus located in the same room as a fuel-burning appliance:**

- If the apparatus is located on a wall, it should be located at a height greater than the height of any door or window but at least 150mm from the ceiling. If the apparatus is mounted on a ceiling, it should be at least 300mm from any wall or light fitting.
- The apparatus should be at a horizontal distance of between 1m and 3m from the potential source.
- If there is partition in a room, the apparatus should be located on the same side of the partition as the potential source.
- In rooms with sloped ceilings, the apparatus should be located at the high side of the room.

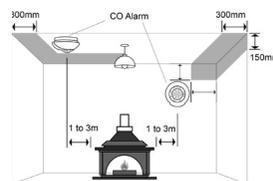**FIGURE 1 - POSITION OF ALARM IN A ROOM WITH FUEL BURNING APPLIANCE**     **FIGURE 2 - POSITION OF ALARM WITH NO APPLIANCE IN ROOM**



**Apparatus located in sleeping rooms and in rooms remote from a fuel burning appliance:**

- The apparatus should be located relatively close to the breathing zone of the occupants.

**Areas to be avoided include the following:**

- Situations where the temperature may drop below -10oC or
- exceed 40oC
- In a damp or humid area
- Any area where high levels of dusty, dirty or greasy emissions
- could contaminate or clog the sensor.
- Where the air flow to the apparatus would be obstructed by
- curtains or furniture.
- Next to a door or window or in the path of air discharged from a
- furnace / air conditioning vent or ceiling fan.
- Outside the building
- Directly above a sink or cooker
- In or below cupboard

### INSTALLING THE HEAT & CO ALARM
The circuit used to power the heat & CO 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.

This heat & CO alarm will function correctly either as a stand-alone alarm or interconnected. All interconnected alarms must be supplied from a single power circuit. A common neutral must be used for interconnect to function.

- 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.

**To fix the mounting base into position**

1. Find the key lock from the Mounting Base. Remove the Key Lock from the Mounting Base and keep it. Find the instruction to remove key lock from **Figure 7**.
2. Use a Screw driver to remove the Wiring Cover. **See Figure 6.**
3. Connect the wires to the correct terminals (on the mounting base) to incoming supply. If alarms are to be interconnected, link out the interconnection terminals. Ensure the screws are fully tightened. **See Figure 7**.
4. Fix mounting base in position.

**Wire connection instruction to the mounting base**

1. Strip the Active/Neutral and Inter-connect (if used) wires.
2. The alarm must be wired in accordance with National wiring codes.

| LIVE | Connect to house wires coloured Brown, Red or marked with L. |
|---|---|
| NEUTRAL | Connect to house wires coloured Blue, Black or marked with N. |
| INTERCONNECT | Normally not used except to hardwire interconnect to the mains smoke Never use EARTH wire for interconnect wire. |

**Assemble alarm unit to the mounting base**

1. Before assembly to the mounting base, test the correct operation of the alarm (operating from the battery only) by pressing the test button on the front of the alarm. The unit should emit a loud pulsating alarm.
2. Assemble the alarm unit onto the mounting base by sliding it in according to the direction of the arrows.
3. Insert the Lock Key into the Lock Hole at the side of mounting base. See Figure 8
4. Restore the AC supply
5. Test the correct operation of the alarm by pressing the test button on the front of the detector. The unit should emit a loud pulsating alarm.

**To remove the alarm unit from the mounting base for changing battery**

1. Use a screwdriver to pick out the lock key from the key hole. The key hole is located at the side of Mounting Base.
2. Use a screwdriver to release the alarm unit from the mounting base by pushing up the temporary latch with a screw driver. See Figure 4
3. Slide the alarm unit out from the mounting base.

**To lock the alarm unit onto the Mounting Base, insert the Lock Key into the key hole. See Figure 9 for instruction.**
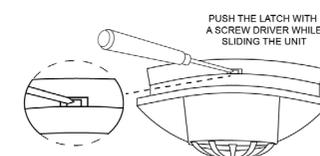
Figure 4 - Release Temporary Lock

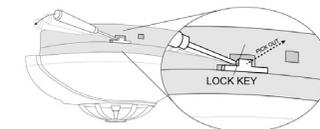Figure 5 - Use a Screw to pick out the Lock Key from the Mounting Base
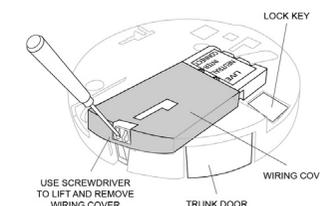
Figure 6 – Remove Wiring Cover

Figure 7 –
Wiring &
Interconnect facility

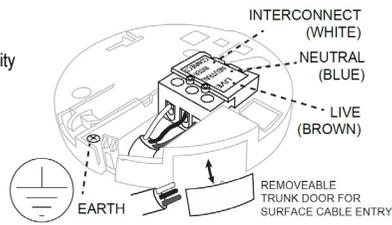INTERCONNECT (WHITE)
NEUTRAL (BLUE)
LIVE (BROWN)
EARTH
REMOVEABLE TRUNK DOOR FOR SURFACE CABLE ENTRY

Figure 8 – Locking the Alarm Unit with the Base

INSERT THE LOCK KEY INTO THE LOCK HOLE TO LOCK THE ALARM UNIT ON THE MOUNTING BASE
LOCK KEY

**WIRELESS CONNECTING THE FIRE ALARM**
Wireless pairing the fire alarm, smoke alarm, or heat alarm (Learning mode)

**On First Alarm**
Press Wireless Pairing Button & hold for 5 seconds until LED lights up.

**On all additional alarms**
Press Wireless Pairing Button 2 times. Pairing Light will flash RED. Repeat for each additional alarm.

Wireless Pairing Mode:
The Pairing Light is on for 30 seconds

Wireless Pairing Button

Pairing Light

**IMPORTANT!**
The Wireless Pairing Button is only used for wireless interconnection.

## OPERATING YOUR SMOKE ALARM

Figure 9 –
Alarm indication

Green LED
Red LED (Warning)
Yellow LED (Fault)
Red LED (FIRE)
Test Button
Red LED (CO)

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## LED Indication Summary

| | |
|---|---|
| Green Light | Alarm is Activated and Powered |
| Red Light on Warning | General Warning Signal |
| Red Light on CO | High Risk CO Warning Signal |
| Red Light on FIRE | High Temperature Warning Signal |
| Yellow Light | Unit Malfunction / End of Life Signal |

### Alarm Powered & Activated Indication
Once the apparatus has been activated and powered by battery, all red, yellow, and green LED will flash for 5 seconds. The green light will flashes every 45 seconds to indicate the alarm is powered by battery. Once the alarm unit is powered by AC, the green LED will stay illuminated.

### High CO Concentration Warning
When apparatus detects dangerous levels of CO gas, the red LED on "CO" and the Warning red LED will flash and the buzzer will chirp 4 times simultaneously every 5 second. See below for Dangerous CO Level. Unit will not stop giving warning signal until the surrounding CO level is clear.

| CO LEVEL (PPM) | RESPONSE TIME (MIN) |
|---|---|
| 50 | 60-90 |
| 100 | 10-40 |
| 300 | < 3 |

### High Heat Temperature Fire Warning
When apparatus detects high temperature (higher than 60oC), the red LED on "HEAT" and the Warning red LED will non-stop flashing and the buzzer will non-stop chirping until being silenced or until apparatus detects surrounding is lower than (57oC).

### Test Function
Long press 1 second on the Test button to check if apparatus operates normally. The test warning will switch between fire warning and CO warning for each time.

### Hush Function
For CO Warning, the apparatus could not be silenced and will not return to normal mode until the apparatus detects CO is clear in the surrounding area. For Heat warning, the apparatus will be silenced for 6 min by long press the Test button for 1 second. After 6 minutes, if detects surrounding area is not lower than (57oC), the apparatus will continue to chirp and flash. For further instruction, read Section – "WHAT TO DO IF THE ALARM SOUNDS".

### Low Battery Signal
In case the battery is at the end of its life, the yellow LED will flash 1 times, chirp 1 time simultaneously in every 45 seconds. This low battery voltage warning will be given for 7 days. Under normal operating conditions, the batteries will last ten years. However, battery life will be reduced if the apparatus remains in alarm for long periods of time.

### Unit Malfunction
The apparatus performs an internal self-diagnosis every minute to make sure that it is functioning properly. In the rare event that your alarm malfunctions, **the yellow LED will flash 2 times, chirp 2 time simultaneously in every 45 seconds.** In this case, the alarm must be replaced.

Never ignore the alarm. A true alarm is an indication of potentially dangerous levels of carbon monoxide and fire. This alarms is designed to alert you to the presence of carbon monoxide and fire before an emergency, before most people would experience symptoms of carbon monoxide poisoning, giving you time to resolve the problem calmly.

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### End of Life Signal
After 10 years operation, **the yellow LED will flash 3 times and beep 3 times simultaneously for every 45 seconds**. In this case, the alarm must be replaced.

## SYMPTOMS OF CO POISONING
The following symptoms may be related to CO poisoning:

| 35 ppm | The maximum allowable concentration for continuous exposure for healthy adults in any 8 hour period. |
|---|---|
| 200 ppm | Slight headaches, fatigue, dizziness, nausea after 2-3 hours |
| 400 ppm | Frontal headaches within 1-2 hours, life threatening after 3 hours. |
| 800 ppm | Dizziness, nausea and convulsions within 45 minutes. Unconsciousness within 2 hours. Death within 3 hours. |
| 1600 ppm | Headache, dizziness and nausea within 20 minutes. Death within 1 hour. |
| 6400 ppm | Headache, dizziness and nausea within 1-2 minutes. |

**The apparatus may not prevent the chronic effects of carbon dioxide exposure and that the apparatus will not fully safeguard individuals at special risk.**

## WHAT TO DO IF THE ALARM SOUNDS
**Actuation of your CO alarm indicates the presence of carbon Monoxide (CO), which can KILL YOU.**
If alarm signal sounds:

1. Immediately move to fresh air – outdoors or by an open door/window. Do a head count to check that all persons are accounted for.

2. Where possible turn off all fuelled appliances and stop using them.

3. Call your emergency services

4. Do not re-enter the premises nor move away from the open door/window until emergency services responders have arrived, the premises have been aired out, and your alarm remains in its normal condition.

5. Call a qualified appliance technician to investigate for sources of CO from fuel burning equipment and appliances, and inspect for proper operation of this equipment. If problems are identified during this inspection have the equipment serviced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturers' instructions, or contact the manufacturers directly, for more information about CO safety and this equipment. Make sure that motor vehicles are not, and have not been, operating in an attached garage or adjacent to the residence.

## MAINTAINING YOUR HEAT & CO ALARM
Your alarm will alert you to potentially hazardous CO concentrations in your home when maintained properly. To maintain your alarm in proper working order, it is recommended that you:

• Test your alarm at least once a month. Push and hold the test button for approximately 1 seconds

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.

• Clean the outside case regularly to prevent dust or dirt build up in the slots. DO NOT USE CLEANING AGENTS, BLEACH, POLISH OR ANY CHEMICALS. Chemicals can permanently damage or temporarily contaminate the sensor. Simply wipe with a damp cloth OR a clean tissue.

• Do not paint the alarm

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NOTE - If you will be staining or stripping wood floors or furniture, painting, wall-papering, or using aerosols or adhesives, remove the alarm to a remote location before in order to prevent possible damage to or contamination of the sensor.

The following is a list of substances which, at high levels, can affect the sensor and may cause a nuisance alarm that is not a carbon monoxide alarm: Methane, propane, iso-butane, ethylene, ethanol, alcohol, iso-propanol, benzene, toluene, ethyl acetate, hydrogen, hydrogen sulfide, sulfur dioxides. Also most aerosol sprays, alcohol based products, paints, solvents, adhesives, hair sprays, after shaves, perfumes and some cleaning agents.

## LIMITATIONS OF HEAT ALARM

• Heat alarms are not designed to protect life safety against fire and smoke. In most fires, hazardous levels of toxics 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 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 & CO ALARM WARRANTY
These alarms are warranty to be free from defects in materials and workmanships under normal use and service for a period of ten (10) 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 Alarm with proof of purchase, postage and return postage prepaid, to local wholesaler. 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.

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 FIRE 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).