

# HISPEC

LIGHTING • FIRE & CO DETECTION



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## MODEL: HSA/BC/RF10-PRO

### LITHIUM BATTERY POWERED CARBON MONOXIDE ALARM

#### MAIN FEATURES:

- Electrochemical Sensor
- Wireless interconnection via RF 868MHz
- Wireless Interconnect with max. 20pcs RF-PRO Series alarm & control units
- Test/silence Button
- Low Battery Warning
- Self-Test Function
- Approved to EN50291-1:2010+A1:20 12

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

#### SPECIFICATIONS

Power Source:	'Lifetime Power' 3V Lithium Battery
Battery Life:	10 Year (sealed)
Type of Gas sensed:	Carbon Monoxide
	50 PPM (Between 60 to 90 min.)
	100 PPM (Between 10 to 40 min.)
	300 PPM (Less than 3 min.)
Alarm Response Time:	
Operation Temperature:	-10°C ~ 40°C
Ambient Humidity :	10%-90%
Sounder Level :	85 Decibels at 3m

#### Wireless Interconnection

Radio Frequency:	868MHz
Interconnect method:	Self-learn, self pair
Interconnect distance:	80m open area / 30m indoor area
Max interconnect unit:	20pcs Hispec RF-PRO Series alarm units

#### LOCATING THE CO ALARM

Ideally, a CO alarm should be installed in every room containing a fuel burning appliance. Additional apparatus may be installed to ensure that adequate warning is given for occupants in other rooms, by locating apparatus in:

- Remote rooms in which the occupant spend considerable time whilst awake and from which they may not be able hear an alarm from apparatus in another part of the premises, and
- Every sleeping room.

However, if there is a fuel burning appliance in more than one room and the number of CO alarm is limited, the following points should be taken into consideration when deciding on the best location:

- An apparatus should be located in a room containing a flueless or open-flued appliance.
- If there is an appliance in a room where people spend most time, an apparatus should be placed in that room.
- If there is an appliance in a room where people sleep, an apparatus should be placed in that room.
- In a bedsit, the apparatus should be placed as far from the cooking appliances as possible but near to where the person sleeps.
- If the appliance is in a room not normally used, such as boiler room, the apparatus should be placed just outside the room so that the alarm will be heard more easily.



#### CAUTION

This alarm will only indicate the presence of carbon monoxide gas at the sensor. Carbon Monoxide gas may be present in other areas.

This carbon monoxide alarm is designed to detect carbon monoxide gas from ANY source of combustion. It is NOT designed to detect smoke, fire or any other gas.

#### POSITIONING THE CO 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 150 mm from the ceiling. If the apparatus is mounted on a ceiling, it should be at least 300 mm from any wall.
- 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.

**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 a cupboard

#### The following conditions can result in transient CO situations in the home:

- Excessive spillage or reverse venting of fuel burning appliances caused by:
  1. Outdoor ambient conditions such as wind direction and/or velocity, including high gusts of wind; heavy air in the vent pipes (cold/humid air with extended periods between cycles).
  2. Negative pressure differential resulting from the use of exhaust fans.
  3. Simultaneous operation of several fuel burning appliances competing for limited internal air.
  4. Vent pipe connection vibrating loose from clothes dryers, furnaces, or water heaters.
  5. Obstructions in or unconventional vent pipe designs which amplify the above situations.
- Extended operation of unvented fuel burning devices (range, oven, fireplace, etc.).
- Temperature inversions which can trap exhaust gases near the ground.
- Car idling in an open or closed attached garage, or near a home.

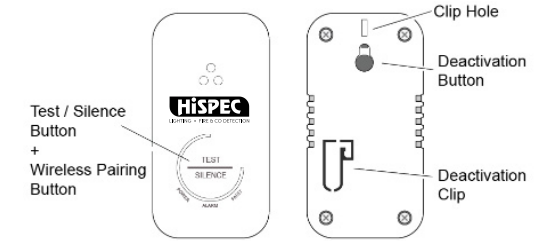


#### WARNING

This carbon monoxide alarm is designed for indoor use only. Do not expose to rain or moisture. It will not protect against the risk of carbon monoxide poisoning when the battery has drained. Do not open or tamper with the alarm as this could cause malfunction.

Installation of the apparatus should not be used as a substitute for proper installation, use and maintenance of fuel burning appliances including appropriate ventilation and exhaust systems.

#### ALARM OVERVIEW



#### PAIRING YOUR CO ALARM TO ADDITIONAL ALARMS

Ensure the alarm is switched on: The switch to turn the alarm on is located at the top of the mounting hole on the back of the unit. If you use the fixing screws provided to attach the unit to the wall this will turn the alarm on, alternatively you can use a small screwdriver or other implement to push the switch upwards. Once the unit has been turned on it will emit a loud chirp.

#### On the First Alarm

Hold the Test / Silence Button for 12 seconds. (RED LED stays lit) Alarm is now in pairing mode.

#### On all additional alarms

To connect this unit to another smoke, heat or carbon from the RF10-PRO range, Press the test/silence button twice with a pause in the middle of the taps. (1 second tap, pause, 1 second tap) this must be done whilst the unit you are connecting it to is in its pairing mode.

#### Removing an alarm from the Home Group

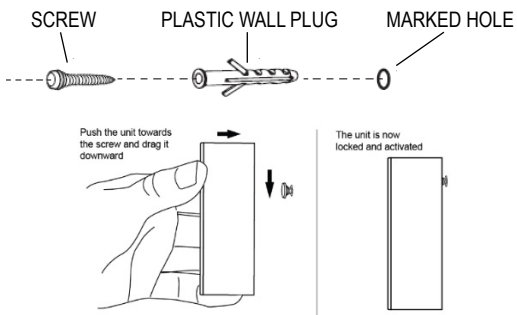
Press the test/pairing button repeatedly at a steady pace until the carbon monoxide alarm flashes at you 10 times these flashes it will now be reset and unpaired.

#### INSTALLING AND ACTIVATING THE CO ALARM

This CO alarm is powered by a 'Lifetime Power' 3V Lithium battery and requires no additional wiring. It can either be free-standing or installed on the wall using the fixings provided.

#### Wall mount installation:

- Having established the mounting location, ensure that there is no electrical wiring or pipe work in the area adjacent to the mounting surface.
- Mark the mounting hole's location.
- Drill holes in the position marked and insert the plastic wall plug into the hole.
- Hook the alarm unit onto the screw and drag the alarm down. This will activate the CO Alarm and will cause it to make a loud chirp. Read section "Alarm Condition" in OPERATING YOUR CO ALARM.



**Test / Hush Function**

While the CO Alarm is chirping, press and hold the Test / silence button for 2 seconds. If the CO alarm detects a CO concentration under 30ppm, the alarm unit will be silenced for 10 hours. If the alarm unit did not silence, that means the CO Level is higher than 30ppm. Read Section – “WHAT TO DO IF THE ALARM SOUNDS”.

**Low Battery Signal**

In case the battery is at the end of its life, the apparatus will sound a short chirp with a Yellow LED flash simultaneously every minute. This low voltage warning will be given for at least 7 days. Under normal operating conditions, the batteries will last ten years.

**End of Life Signal**

After 10 years operation, the yellow LED will flash 3 times and beep 3 times simultaneously every 48 seconds. Read below “Deactivating Unit”.

**Unit Malfunction**

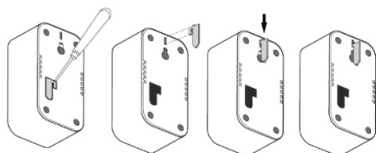
Your CO alarm performs an internal self-diagnosis every minute to make sure that it is functioning properly. In the rare event that your alarm malfunctions, the apparatus will sound a double short chirp and the yellow LED will flash simultaneously every minute. In this case the alarm must be replaced.

Never ignore a CO unit’s alarm. A true alarm is an indication of potentially dangerous levels of carbon monoxide. CO alarms are designed to alert you to the presence of carbon monoxide before an emergency, before most people would experience symptoms of carbon monoxide poisoning, giving you time to resolve the problem. Read section “What to do if alarm sounds”.

**Deactivating Unit**

If the CO alarm is confirmed to be faulty or at the end of its life, you may uninstall and deactivate the CO alarm by following these steps:

- Unhook the alarm unit from wall.
- Use a screwdriver to lever the deactivation clip out
- Fit the deactivation clip into the clip hole and push downward
- The alarm unit is now deactivated



**TESTING YOUR CO ALARM**

Test the unit by holding the Test / Silence button for 3 seconds. The sounder will chirp 4 times and the red LED will flash for 30 seconds; this will then emit a signal to test all other alarms that are connected to that home group.

**SILENCE FEATURE**

Important: The alarm will not silence if it has detected carbon monoxide gas. (CO concentration higher than 30ppm). The silence function is applicable only to the Low Battery Warning Signal, End of Life Signal and Fault Warning signal.

To operate the silence feature, press the test button and hold for approximately 3 seconds. The alarm unit will enter a dormant period for 10 hours. After 10 hours, the CO alarm will resume its operation. You should be alert to the signal the alarm gives and replace the unit.

**WHAT TO DO IF THE ALARM SOUNDS**

**WARNING**

Activation 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 if anybody is unwell or missing.
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 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.
- 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 CO alarm

**NOTE** - If you will be staining or stripping wood floors or furniture, painting, wall-papering, or using aerosols or adhesives, remove the CO alarm to a remote location beforehand 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, isopropanol, 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.

**NOTE: THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING.**

**END OF UNIT LIFE**

**With normal use the battery will last at least 10 years. However, battery life will be reduced if the apparatus remains in alarm for long periods of time.**

The apparatus must be replaced when a fault warning signal is given.

**NOTE: BATTERY SEALED-IN NOT FOR REPLACEMENT**

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

**YOUR CO ALARM WARRANTY**

These CO alarms are warranted to be free from defects in materials and workmanship, under normal use and service, for a period of five (5) years from date of purchase. Hispec will not be obligated to repair or replace parts, which are found to be in need of repair due to misuse, damage, or alterations occurring after the date of purchase. The liability of Hispec, arising from the sale of this CO alarm, shall not in any case exceed the cost of the purchase price of the CO alarm. In no case shall Hispec be liable for personal injury, property damage, or any other consequential loss or damage, resulting from the failure of the fire alarm.

CO alarms are not a substitute for property, life, or other insurance of any kind. This does not affect your statutory rights.

This alarm is suitable for private dwellings only and is not intended for 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. Regulations encourage the recycling of Waste from Electrical and Electronic Equipment (European “WEEE Directive” effective August 2005).

**IMPORTANT:** After installation, test your alarm (see the paragraph “Test your CO alarm”. The apparatus should be installed by a competent person.

**OPERATING YOUR CO ALARM**

During normal operation the CO alarm performs a self-check test every minute.

**Alarm Condition**

LED LIGHT	CONDITION INDICATION	
	GREEN LIGHT	Alarm Unit Activation and Power on
	RED LIGHT	High CO concentration Warning
	YELLOW LIGHT	Unit Malfunction - End of Life Signal

**Alarm unit Activation and Power on**

After the CO Alarm is hooked on and installed, the green LED will flash 5 times. Then, the green LED will continually flash every 48 seconds to indicate power is on.

**High CO Concentration Warning**

When the apparatus detects dangerous levels of CO gas, it will give an alarm signal. The red LED will flash and the sounder will chirp 4 times simultaneously every 5 seconds.

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

**WARNING**

This product may not alarm at low carbon monoxide levels. Individuals with medical problems may consider using warning devices which provide audible signals for carbon monoxide concentrations under 30 PPM.