

Pro Series3 Radon Gas Detector HS71512 User Guide

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1. Radon Gas – Facts and Concerns

Radon is a radioactive gas which is colourless, tasteless and odourless. It is impossible to detect Radon without the use of sensitive test equipments. Radon is a naturally occurring gas that is produced by the breakdown of uranium in soil, water and/or rock. If allowed to accumulate at high levels for a long-term, it can be hazardous to health. Radon is the second leading cause of lung cancer while cigarette smoking is the primary cause and leads to more lung cancer deaths.

The EPA (Environmental Protection Agency) suggests that corrective action can be taken to reduce the radon levels in your home if it's measured over the long term at 4pCi/L or greater.

You can also visit the EPA web site at www.epa.gov/iaq/radon/index.html for more information.

2. Placement of Radon Detector

The [Safety Siren Pro Series3 Radon Detector](#) should be positioned in the lowest living area of your home in a location where it will be kept undisturbed. The audible alarm should be able to be heard from those areas. A second detector can also be placed in a basement room that is rarely used. This is also a good means to determine the levels of radon in your home.

Location of the detector should be:

- At least 3 feet from doors, windows, or any other possible openings on the exterior walls
- At least 1 foot from the exterior wall
- At least 20 inches from the floor

No other obstructing objects should be placed within 4 inches of the detector.

3. Installation of the Detector

The Safety Siren Pro Series3 Radon Detector is well designed to plug into a standard 120-volt household outlet using the provided and attached power cord. The detector should be placed facing up on a tabletop or any other flat surface where the ventilation slots won't be blocked. Remember to keep the detector dust free. A proper airflow must be maintained through the detector so as to obtain an air sample representing the local environment.

4. Areas to be Avoided

- Near drafts caused by heating, ventilating systems, and/or air conditioning vents, doors, fans and/or windows
- Near excessive heat areas, such as fireplaces, under direct sunlight, and areas of high humidity
- Near radios, computers, televisions, or other electrical equipments
- Near curtains, furniture, or any other items that may restrain the flow of air
- The detector should also not be placed in kitchens, laundry rooms, closets, or bathrooms

5. Display Features

The [Safety Siren Pro Series 3 Radon Detector's](#) display is designed to notify the user about the radon gas levels on either a short-term or long-term basis, and is updated every hour if there is a change in the levels. Both long-term and short-term measurements are run simultaneously and can be accessed by the use of the menu button. The numeric LED display of the detector shows the levels of radon gas in Pico Curies per liter i.e. pCi/L (the display range is between 0.0 and 999.9).

5.1. Short-Term Display

The display for the short-term reading is an average of radon gas levels over the past seven days. Short-term readings allow the user to monitor any fluctuations in the home environment providing seasonal and weather related variations also. A green LED next to the letter "S" indicates this short-term reading. If the measurement reaches 4pCi/L or more, with the exposure of 30 consecutive days or more, the audible alarm will ring.

5.2. Long-Term Display

The display of the long-term reading is an average of the radon gas levels for the length of time that the detector has been powered on or has been last re-set. A green LED next to the letter "L" indicates the long-term reading. When the reading on the long-term reaches a level of 4 or greater an audible alarm will sound immediately.

6. Initial Start-Up

Upon the initial power-up, detector's display will temporarily show an internal code including a few letters and numbers. This code determines if the detector is calibrated for use within the USA or Europe. The detector will conduct a self-test and the audible alarm will chirp four times. The display will then read "--" i.e. two dashes. These two dashes will remain until a sufficient sample has been obtained by the detector to create a precise reading. For short-term and long-term readings, samples need to be taken for at least 2 days (48 hours) before an accurate reading is displayed.

7. Audible Alarm

4pCi/L is the standard level set by the EPA as the threshold at which corrective action should begin to eliminate the radon problem within your home. The detector will alarm in both long-term and short-term modes when:

- Short-term readings display 4pCi/L or more for 30 consecutive days or
- Long-term readings display 4pCi/L or greater (alarms immediately, no 30 days delay).

When the detector goes into an alarm mode, the buzzer will sound 4 chirps. This alarm will be repeated after every hour until the radon level on the long-term reading drops below 4pCi/L or until the user mutes the alarm.

8. Menu Button Operation

The menu button manages 4 different functions for the Safety Siren Pro Series 3 radon detector. These functions are controlled by the length of time that the button is pushed.

8.1. Long-Term / Short-Term Button

This function is used to change the display between the short-term and long-term radon level readings. **Press the menu button for one second.** The display changes

instantly with the release of menu button. The LED indicator light next to the “S” or “L” point outs which reading is being viewed. If the menu button is held in for longer than 3 seconds, the display doesn’t change.

8.2. Test

The test function is used to assess the audible alarm. **Press and hold the menu button for 5 seconds.** The alarm will ring 4 chirps as if it is in an alarm condition. Release the menu button once the alarm begins to ring.

8.3. Alarm Mute On/Off

This function allows you to silence the audible alarm. While in an alarm condition, **press and hold the menu button for 15 seconds.** As you surpass the test phase, the alarm will ring 4 chirps. The display will then read “Aoff”. Release the menu button immediately and the display returns to normal condition. If the long-term reading returns to controlled level, audible alarm will be reset to the on position. If desired, the alarm can be reactivated by repeating the same process. On reactivation of the alarm, the display will read “Aon”.

8.4. Reset/Clear Memory

This function allows you to clear and/or reset the memory for both short-term and long-term readings. This is a mandatory step whenever the detector is moved to a different location. **Press and hold the menu button for 20 seconds.** The display will read “CL”. Upon release of the menu button, the “CL” keeps flickering until the memory has been completely cleared. Once the memory has been cleared, the display will read “—” for 48 hours until enough sample has been obtained to provide an exact reading.

8.5. Calibration

Note for Radon Measurement Professionals

The U.S. Environmental Protection Agency (EPA), Radiation and Indoor Environments National Laboratory (R&IE) has approved this device for radon gas level measurement. If you are a licensed radon measurement professional using this device for home inspections, etc., the EPA recommends a calibration and background check be performed annually.

Contact Family Safety Products Inc. to request a Calibration Authorization Number (CA#) as the units without CA# will be returned to sender (freight prepaid). The fee for calibration is \$75. The time taken is approximately two weeks.

Note for Home Owners

Annual calibration is optional for any private use of this detector. A homeowner who wants to request for a periodic calibration must also follow the same procedure. Same charges may apply.

9. Error Messages

Every 24 hours, this radon gas detector will do a self-test. If there is a failure in this self-test, an error message will appear on the display.

9.1. Err3 – Noise Error

This error is normally from any kind of electrical noise interferences. This error can be caused by fluorescent lights, computers, televisions, or other electric items. The detector needs to be moved to a different location which is away from the items causing the interference.

9.2. Err4 – Sensor Error

This error occurs on sensor failure to self-test. If this error appears, the detector should be unplugged for just five minutes and powered back up. You can also get your detector replaced if the Err4 code reappears.

10. Specifications

Power Source Adapter	120Vac, 60Hz, 6.5 W Model No. DCU180020
Input for the Detector	18VDC, 200mA
Sensor	Ionization Chamber
Sensor Voltage	250VDC
Full Scale Reading	0.0 to 999.9pCi/L
Operating Environment	0 C (32 F) to 40 C (104 F)
Storage Environment	-20 C (-4 F) to 85 C (185 F)
Audible Alarm	85dB at 10cm The alarm beeps every hour in case the long-term readings are 4 pCi/L or more The alarm beeps in case the short-term readings are 4 pCi/L or more for 30 consecutive days The alarm can be muted anytime by the user
Averaging Frequency	Levels will be updated on the detector's display every hour
Short-Term	Average is taken over the past 7 days

Long-Term	<p>Average from the time of last reset.</p> <p>Maximum sampling time is of 5 years.</p> <p>The detector will automatically reset after 5 years of accumulated data.</p>
Accuracy	+/- 20% pCi/L
Dimensions	4.7" x 3.1" x 2.1"

11. One Year Limited Period Warranty

Family Safety Products, Inc. warrants this product to the original retail purchaser, to be free from any kind of defects in material and workmanship. This isn't a transferrable warranty and is effective from the date of original retail purchase only.

Any defective units that are returned to Family Safety Products, Inc. within the warranty period will be repaired or replaced free of charge to the original purchaser. If you suspect that your detector is defective, please follow the instructions found below.

Procedures for Warranty Service:

1. You can contact Family Safety Products, Inc. by email at info@fspiradon.com or by postal mail to receive a return authorization (RA) number. (Any products returned without the RA number will be refused and returned to the purchaser).
2. Make sure to include with your detector the RA number, your name, address, phone number and description of the issue you are experiencing. (All returns must include a copy of the original purchase receipt also).
3. While packing the detector, ensure that no damage occurs during return shipment.
4. Write the RA number received carefully on the outside of the package near the address label.
5. Send the package (postage prepaid)

To,

Family Safety Products, Inc.
2879 Remico St. SW,
Grandville, MI 49418.

This Warranty Does Not Cover:

- Cost of shipping the product
- Normal wears & tears, scratches or fading of product
- Damage caused by misuse or tampering with the product
- Damaging or removal of the back cover
- Damage caused by failure to follow installation
- Consequential or incidental damages or expenses

This limited period warranty is restricted to the provisions clearly stated above. Implied warranties, warranties of merchantability and/or warranties of fitness for a particular use are excluded. If any of this warranty is prohibited by federal, state or local law, that provision shall not be applicable.