Pro Series3
Radon Gas Detector
HS71512

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www.sylvane.com
1 (800) 934-9194

Facts and Concerns Regarding Radon Gas

Radon is a radioactive gas that is colorless, odorless, and tasteless and is impossible to detect without the use of sensitive test equipment. Radon is a naturally occurring gas produced by the breakdown of uranium in soil, rock, and water. When allowed to accumulate to high levels, it can be hazardous to long-term health. The Surgeon General has warned that radon is the second leading cause of lung cancer in the United States. Only cigarette smoking causes more lung cancer deaths.

The EPA presently suggests that corrective action be taken to reduce the radon levels in your home if measured over the long term at 4 pCi/L or greater. For more information regarding radon gas, please visit the EPA web site at www.epa.gov/iaq/radon/index.html.

Location of the Detector

The detector should be placed in the lowest living area of the home in a location where it will not be disturbed. The audible alarm should be able to be heard from areas frequented on a daily basis. A second detector placed in a basement room rarely used, is also a good means to determine the level of radon in the home.

Location of the detector should be at least 3 feet from windows, doors, or any other potential openings in the exterior walls. The location of the detector should be at least 1 foot from the exterior wall and at least 20 inches from the floor. No other object should be placed within 4 inches of the detector.

Areas to Avoid

- Near drafts caused by heating, ventilating, and air conditioning vents, doors, fans and windows.
- Near excessive heat, such as fireplaces and direct sunlight, and areas of high humidity.
- Near televisions, computers, radios, or other electrical equipment.
- Near curtains, furniture, or other items that may inhibit the flow of air through the ventilation slots.
- In general, the detector should not be located in kitchens, laundry rooms, closets, or bathrooms.

Installation

The Safety Siren Pro Series3 Radon Detector is designed to plug into a standard 120-volt household outlet using the attached power cord. The detector may be placed face-up on a tabletop, counter top, or any flat surface where the ventilation slots will not be blocked. The detector must be kept dust free. A proper airflow must be maintained through the detector to obtain an air sampling representative of the local environment.

WARNING: Do not plug the detector into a wall outlet controlled by a light switch.

> **WARNING: Risk of severe electrical shock. There are no user serviceable parts inside the detector. Do not remove the back cover. Removal of the back cover will void your warranty.**

Display Features

The numeric LED display shows the level of radon gas in Pico Curies per liter (pCi/L). The display range is 0.0 to 999.9. The Safety Siren Pro Series 3 Radon Detector display is designed to notify the user of the level of radon gas on either a short-term or long-term basis, and is updated every hour if there is a change in the level of radon gas. Both long-term and short-term measurements are running

simultaneously and are accessed by use of the menu button (see **Menu Button Operation** section).

Short-Term Display

The display for the short-term reading is an average of the levels of radon gas over the past seven days. The short-term reading allows the user to monitor short-term fluctuations in the home and provide a better feel for problems relating to seasonal and weather related variations in the radon levels. A green LED next to the letter "S" indicates this reading. When the short-term measurement reaches 4 pCi/L or greater, for 30 consecutive days or more, the audible alarm will sound (see Audible Alarm).

Long-Term Display

The display for the long-term reading is an average of the levels of radon gas for the length of time that the detector has been powered up or last reset. This reading relates to the average radon level that you would be exposed to if you were in the continual presence of the Safety Siren Pro Series3 Radon Detector. A green LED next to the letter "L" indicates this reading. When the reading on the long-term reaches a level of 4 or greater an audible alarm will sound immediately.

Start-Up

Upon initial power-up, the display will momentarily show an internal code including letters and numbers. This code is used to determine if the detector is calibrated for use within the USA or Europe. The detector will conduct a self-test and the audible alarm will sound four chirps. The display will then read "--". The two dashes will remain until sufficient samples have been taken to create an accurate reading. For the short-term and long-term readings, samples need to be taken for 2 days (48 hours) before an accurate reading can be displayed.

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Audible Alarm

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

- Short-term displays 4 pCi/L or greater for 30 consecutive days, or
- Long-term displays 4 pCi/L or greater (alarms immediately, no 30 day delay)

When the detector goes into an alarm state, the buzzer will sound 4 short chirps. This sound will be repeated every hour until the level on the long-term reading drops below 4 or until the user mutes the alarm. Instructions for this function can be found under Menu Button Operation.

Please note: When in alarm the detector will lock in the mode under which the alarm condition was identified.

Menu Button Operation

The menu button controls 4 different functions for the radon detector. These functions are controlled by the length of time that the button is pushed in.

1. **Long-Term / Short-Term**
   This function is used to change the display between the short-term and long-term readings. Press the menu button in for one second. The display will change the instant the menu button is released with the LED indicator light lit next to the "S" or "L" to indicate which reading is now being viewed. If the menu button is held in for longer than 3 seconds, the display will not change.

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

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3. **Alarm Mute On/Off**

This function allows the user to silence the audible alarm. **<u>While in an alarm condition</u>**, press and hold the menu button for 15 seconds. As you pass through the test phase as indicated above, the alarm will sound 4 chirps. The display will read "Aoff". Release the menu button as soon as "Aoff" is displayed. When the menu button is released, the display will return to normal condition. If the long-term reading returns to a safe level, the audible alarm will be reset to the on position. If desired the alarm can be reactivated by repeating the same process. When reactivating the alarm, the display will read "Aon".

Please note: This function is only active when the detector is in an alarm condition reading of 4 pCi/L or greater, in either long or short-term mode.

4. **Reset/Clear Memory**

This function allows the user to clear and reset the memory for the short and long- term readings. This should be done anytime the detector is moved to a different location. Press and hold the menu button for 20 seconds. The display will read "CL". When the menu button is released, the "CL" will flicker until the memory has been completely cleared. Once the memory has been cleared, the display will read "--" for 48 hours until enough samples have been taken to provide an accurate reading.

Please note: While using this function, the detector will pass through the test and alarm functions as described above.

A brief description of the Menu Button Functions can be found on the back of the detector.

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> **Note: To prolong the life of the sensor and to ensure proper readings, vacuum the ventilation slots on the detector, using the upholstery attachment on your vacuum every 3 months.**

Note for Radon Measurement Professionals:

Calibration

The U.S. Environmental Protection Agency, Radiation and Indoor Environments National Laboratory (R&IE) has approved this device for radon 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. To request an annual calibration;

- Contact FSPI at 800-748-0298 to request a CA# (calibration authorization number). At that time, please be prepared to pay with a credit card. Units received without CA# will be returned to sender, freight collect.
- Send the unit back to Family Safety Products, Inc. (see address below), <u>freight prepaid.</u> The fee for calibration is $75. Calibration time is approximately two weeks. Family Safety Products, Inc. will send the unit back, freight prepaid.

Note for Home Owners

Annual calibration is optional for the private use of this device. A homeowner requesting a periodic calibration must follow the same procedure outlined above. Same charges apply.

Error Messages

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

Err3   **Noise Error**
           This error is normally from electrical noise interference. This error can be caused by computers, televisions, fluorescent lights or other electrical items. The detector needs to be moved to a different location away from the item causing the interference.

Err4   **Sensor Error**
           This error occurs if the sensor fails the self-test. If this error code appears, the detector should be uplugged for five minutes and powered back up. If the Err4 reappears, please call our customer service department at 800-748-0298 for instructions on how to have your detector replaced.

WARNING: Risk of Electrical Shock!   Do not remove the back cover. Sensor requires 250VDC and may cause severe electrical shock. Removal of the back cover will void your warranty.

Please Note:

To offer protection to your furniture, we have included 4 non-slip rubber pads to be applied to the back of the detector at each corner.

Specifications

Power Source
Adapter	120Vac, 60Hz, 6.5 W
	Model No. DCU180020

Input for Gas
Detector	18VDC, 200mA
Sensor Voltage	250VDC
Sensor	Ionization Chamber
Full Scale Reading	0.0 to 999.9 pCi/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
	Beeps every hour if long-term readings are 4 pCi/L or greater, or short-term reads 4 pCi/L or greater for 30 consecutive days. May be muted by the user.
Averaging Frequency	Levels will be updated on the display every hour.
Short-Term	Average over the past 7 days.
Long-Term	Average from the time of last reset. Maximum sampling time of 5 years. The detector will automatically reset after 5 years of accumulated data.
Accuracy	+/- 20% pCi/L
Dimensions	4.7" x 3.1" x 2.1"

One Year Limited Warranty

Family Safety Products, Inc. warranties this product to the original retail purchaser, to be free from defects in material and workmanship except as otherwise provided herein. This warranty is not transferable and is effective from the date of original retail purchase.

Units returned to Family Safety Products, Inc. that are determined to be within the warranty period and found to be defective, 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 under **Procedures for Warranty Service**.

Procedures for Warranty Service:

1. Contact Family Safety Products, Inc. by phone at 800-748-0298, by email at info@fspi-radon.com or by mail at 2879 Remico St. SW, Grandville, MI 49418 **to receive a return authorization (RA) number**. Products returned without an RA number will be refused and returned to the purchaser.
2. Include with the detector the RA number, your name, address, phone number and description of the problem you are experiencing. All returns must also include a copy of the original purchase receipt showing the date of purchase.
3. Package the detector carefully to ensure that no damage occurs during return shipment. Write the RA number you received on the outside of the package near the address label.
4. Send the package, postage prepaid, to Family Safety Products, Inc. 2879 Remico St. SW, Grandville, MI 49418.

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This Warranty Does Not Cover:

1. Cost of shipping the product to Family Safety Products.
2. Normal wear, scratches or fading of product.
3. Damage caused by abuse, misuse, tampering with the product including the removal of the back cover.
4. Damage caused by failure to follow installation and use directions found in this manual.
5. Consequential damages, incidental damages or expenses, including damages to property and personal injury.

This warranty is limited to the provisions clearly stated herein. Any implied warranties, warranties of merchantability, warranties of fitness for a particular use are excluded.

If any of this warranty is prohibited by federal, state or local law, that cannot be preempted, that provision shall not be applicable. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

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