

Safety Siren Pro Series 3 Radon Gas Detector Protocol

Important note: This radon detector does not record or store data. Following the sampling event, the radon detector will provide you with the average concentration of radon measured averaged over the sampling period (Pico Curies per liter, pCi/L). If a more temporal resolution is of interest, radon concentrations can be recorded manually at given time points (e.g., every 4 hours).

Location of the Detector

1. For initial testing, choose a location for your detector that is in the lowest inhabited area of the home or building.
2. Keep the detector at least 3 feet from windows, doors, and any other openings in external walls.
3. Keep the detector 1 foot from the exterior wall and at least 20 inches off the floor.
4. Set the detector on a flat surface where there is good air circulation. Make sure there are no restrictions blocking the air vents on the sides, keeping all objects at least 4 inches away.
5. Avoid areas near televisions, computers, radios, cell/cordless phones, and other electrical devices.
6. Avoid areas with excessive heat (e.g., near a wood stove), direct sunlight, or high humidity.
7. Do not place the detector on metal, granite, or slate surfaces.

Setup

1. Remove the Radon Gas Detector and power cord from the box.
2. Plug the power cord into the detector and then into an A/C wall outlet.
3. After supplying power, the display will show an internal code of letters and numbers. Disregard this. The detector will then conduct a self-test. You will hear four audible chirps.
4. After the self-test, the display will show either "--" or the last reading from the previous test.
 - a. If "----" is displayed, the symbol will remain until a sufficient amount of samples have been taken to create an accurate reading (after 48 hours). Skip to step 6.
 - b. If the detector displays a reading from a previous test (e.g., 1.4), see ^{steps} 5a through 5b.
5. If the detector displays a numerical reading from the last test, or is being used in a new location, you will need to clear the internal memory:
 - a. Press and hold the menu button for 20 seconds. Note that after holding for 5 seconds the detector will go through its audible alarm test, so you will hear 4 chirps. Keep holding the button.

Once the display shows "CL", release the button. "CL" will flicker on the display while the memory is being erased.

Begin Sampling

After clearing, the radon detector will show "----". The radon detector is now collecting a sample. After 48 hours have passed, the display will show a number indicative of the level of radon gas in

the air. The units are in Pico Curies per liter (pCi/L). Values are updated every hour if there is a change in the concentrations.

There are two options for displaying data on the detector: short-term and long-term. These display options are described below:

Short-Term Display - This reading is an average of the concentrations of radon gas over the past seven days. This allows users to monitor short-term fluctuations in the environment (possibly seasonal and weather related). A green LED next to the letter "S" indicates that the short-term measurement is displayed.

Long-Term Display - This reading is an average of the concentrations of radon gas for the length of the time that the detector has been powered on or reset. Most long-term tests run for 90 days or longer and provide a better understanding of average year-round radon levels. A green LED next to the letter "L" indicates that the long-term measurement is displayed.

*Note: These measurements are running simultaneously and can be accessed during sampling by pressing the menu button.

1. By pressing the menu button for 1 second, you will switch between short-term and long-term displays. Make sure the green LED is next to the "S," and if not, switch it.
2. You can also record the displayed short-term values every 4 hours during the sampling time period (48 hours). Record them on the supplied data sheet along with the date and time.

Alarms

1. If the radon gas level reaches 4 pCi/L or greater, the detector will sound an audible alarm. Note: When the detector is in the short-term mode ("S"), there is a 30-day delay for this alarm.
2. To mute this alarm, press and hold the menu button for 15 seconds.
3. Release the menu button as soon as "Aoff" is displayed on the screen.
4. Once external levels decrease, the alarm will be reset and sound again if levels increase to 4 pCi/L.

Errors

1. The detector will do a self-check every 24 hours. If there is a failure during the self-test, an error message will appear on the screen. Please see the instruction manual for Error Codes and solutions.

Radon Gas Detector Data Sheet

Student Name: _____

Start Date / Time: _____ / _____

Description of Sampling Location: _____

Date (mm/dd/yy)	Time (00:00)	Reading (pCi/L)

End Date / Time: _____ / _____

Final Average (pCi/L): _____

Notes about sampling run (any information that may have influenced the results of your sample):
