Radon Eye Quick Guide

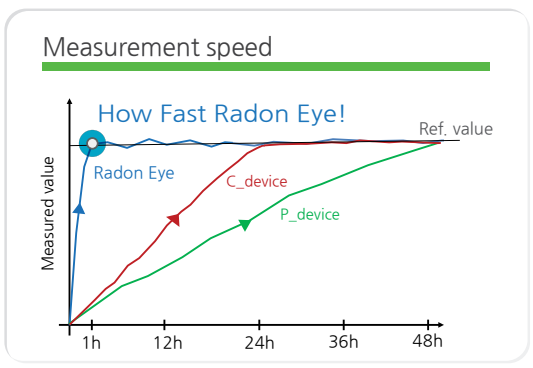
New Excellent Technology certified from Republic of Korea
Smart Radon Detector

Getting Started

1. Please close windows and doors for accurate measurement.

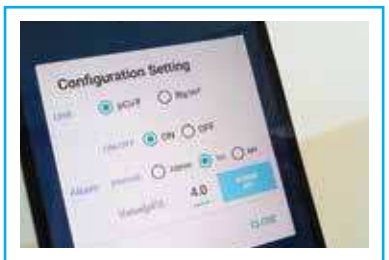
2. Connect the 12V adapter at Radon Eye, it is automatically started. Place the Radon Eye on the table.

3. A measured value is displayed every 10min. Please wait just 1 hour for a more accurate value. With other economic models like the C or P device, it takes 24~48 hours to approach a valid reading.

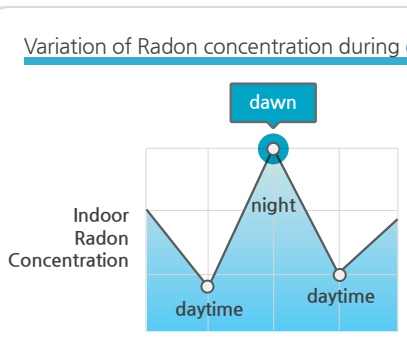


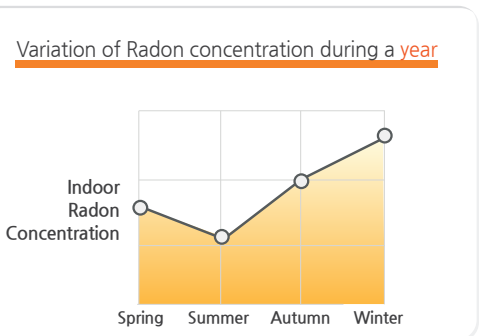
4. When the measured value is greater than the 4pCi/l (148Bq/㎥) safety threshold, an alarm will sound. Just open the window for ventilation longer than 10 minutes.

5. You can use Smartphone App to manage data and setting. Please refer to the Smartphone App Guide.



6. Indoor radon level is generally increased in the dawn. Also, it is highest in the winter season.





App Guide

1. Search Application & Download

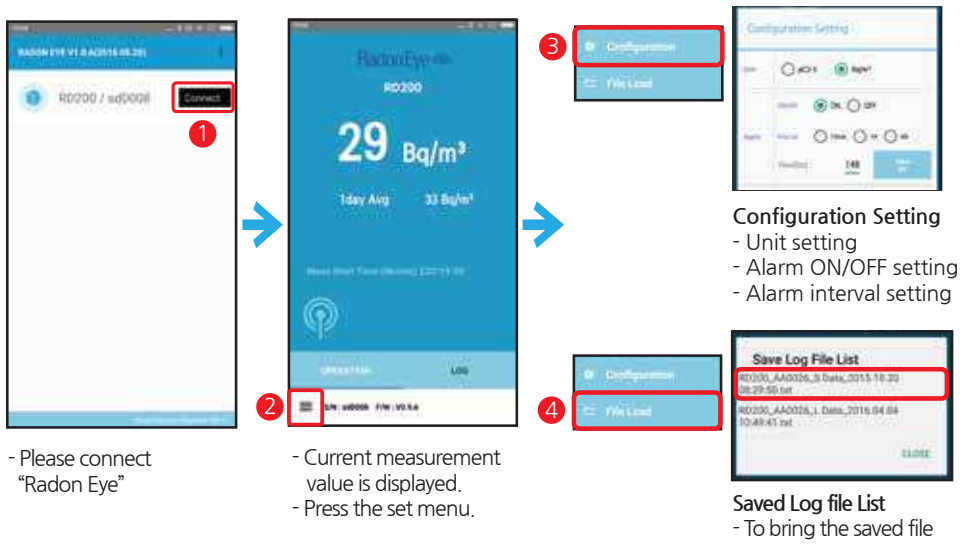
App Store | Google play

Input "Radon Eye" in search box at the your smartphone's App store or Google Play.

2. Download Radon Eye Application

Radon Eye
FTLAB
Download and install application.

3. Connect & Menu

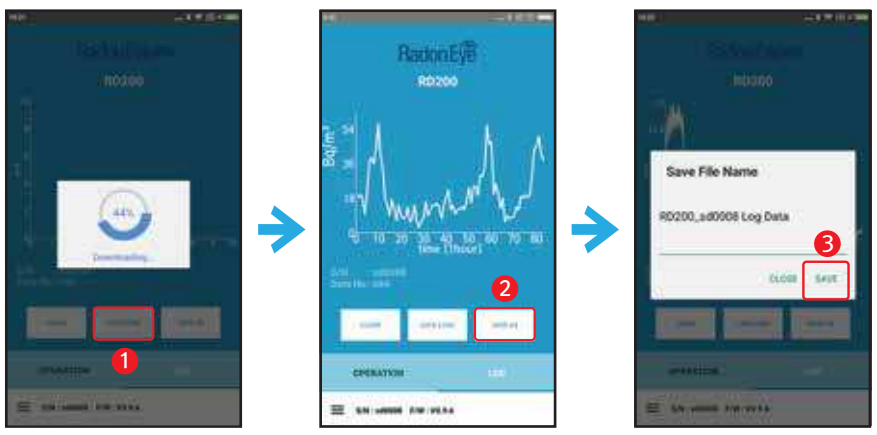


- Please connect "Radon Eye"
- Current measurement value is displayed.
- Press the set menu.

Configuration Setting
- Unit setting
- Alarm ON/OFF setting
- Alarm interval setting

Saved Log file List
- To bring the saved file

4. LOG -> Data Load & Save



- CLEAR : Delete all data
- DATA LOAD : To bring data on smartphones from Radon Eye
- SAVE AS : To Save data in smartphones.

※ location of Saved file

- **iPhone PC Connecting :** iTunes -> App -> File-sharing -> RadonEye click!
- **Android Smart appliances :** File Manager -> Radon FTLab click!

· Please use Bluetooth 4.0 & Android 4.3 or higher versions.
· Bluetooth working distance : < 10meter
· Please avoid vibration or shock during measurement.
· Radon Eye can be operated by a power bank and step-up cable.
Please refer to the battery usage of the operation manual.

Radon FTLab

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SPECIFICATION

- Sensor Type : pulsed ion chamber
- First reliable data out : < 1hour
- Data display interval : 10min update (1hour moving average)
- Sensitivity : 0.5cpm/pCi/l (1.35cpm/100Bq/㎥)
- Operating range : 10℃ ~ 40℃, RH < 90%
- Range : 0.1 ~ 99.99 pCi/l (1~3700Bq/㎥)
- Precision : < 10% at 10pCi/l (370Bq/㎥)
- Accuracy : < ±10% (min. error < ±0.5pCi/l (±15Bq/㎥))
- Power consumption : DC 12 ± 0.1V, 65mA (12V DC adapter)
- Size : Φ80(mm) x 120(mm) , 240g
- Data communication : Bluetooth LE (Android / IOS)
- Data log : max 1year (1hour step)
- Display : 0.96 inch OLED
  (All test data have been measured at 25℃ ± 2℃)

DESCRIPTIONS

RD200 is a Smart Radon Detector made in South Korea which is the home country of Samsung Galaxy Smartphone. The RD200 has 20 times higher sensitivity than the other handy radon detectors. Because the RD200 has the dual structured pulsed-ionization chamber system and highly accurate detection circuit designed by FTLab's own technology. A time for the first reliable data display is just <1 hour, so no longer need to wait a long time, 24~48hours. Also, it offers huge convenience for data logger, graph display, alarm setting using Bluetooth function with Smartphone.

Comparison the price & performance of Radon Detector with other devices

Contents	Home owner		For professional					NEW
	Pro3	CANARY	CANARY Pro	SUN NUCLEAR 1028	RAD7	Alpha Guard	CRM510	RadonEye
Type	photodiode	photodiode	photodiode	photodiode	photodiode	ion chamber	ion chamber	ion chamber
Country	USA	Norway	Norway	USA	USA	German	Canada	KOREA
Sensitivity (cpm/1000Bq/㎥)	–	–	–	1.35	13.5	50	8.1	13.5
Minimum measuring time (h)*	48	24	1	10	0.5	0.2	1	1
Data logger	X	X	O	O	O	O	O	O
Precision(%)	±20	±20	±12	±25	±5	±3	±10	±10
Price(US$)	150	199	1,310	1,200	9,000	18,000	5,000	250

* The minimum measuring time refers to the time it takes to reach a reliable measured value. The shorter means the faster the response speed of the measuring equipment.
* This chart is reported just for reference and may differ from the true. If is not responsible for regal issues resulting from the use of this data.

Q&A

Q1 : Why we have to measure Radon level in our home?

A1 : Recently, non-smoking lung cancer patients have been increased. The ultra-fine dust, second-hand smoke and Radon are the main cause. In these three cause, Radon is the most dangerous. Because Radon is a colorless, odorless and tasteless, so it beyond the human senses. According to the report of the US Environmental Protection Agency, EPA, in the United States, lung cancer deaths caused by Radon are actually a lot more than the deaths caused by drunk driving.

Q2 : Why is the real time measurement important?

A2 : Radon level is usually highest in the dawn when everyone slept deeply. In the middle of a day, when children go to school and their parents go to the work that no one in the house, Radon level is the lowest. So the average of Radon level of all day would be meaningless. And If you neglect ventilation even for a few days during the winter time, Radon level can be as high as several times more than usual although radon levels are usually the lower house. This is the main reason for measuring radon in real time. And when the high Radon level would be detected in your house by Radon sensor, it is recommended to equip the facilities that can immediately mitigate the radon level.

Q3 : What should I do when the high level of Radon in my house?

A3 : First, it is important ventilation. If your home Radon levels are high, you should have a vent at least three times a day and slightly open the windows usual. When the problem is serious, you must request the help of Radon specialists.

Q4 : If ventilation condition of the house is not good, does Radon concentration is increased endlessly?

A4 : No, Radon level would be converged to a certain level within a week because the Radon half-life of 3.8 days.

Q5 : Does Radon also present in the water?

A5 : Yes. Radon could be dissolved in water. So Radon could exist in groundwater. However, drinking groundwater containing Radon is not a big problem if the radon level would be very high. Because alpha particles emitted from the alpha decay of radon, is very weak for penetration power. Therefore it does not significantly affect the digestive surface of the human. So Radon is primarily caused problems when entering the lung through the respiratory a gaseous state.

What is RADON?

Dangerous Radioactive gas. It is a colorless, odorless, and tasteless gas and therefore not detectable by human senses alone. It's density is 8 times higher than air, so it could be easily high concentration state in the basement. Radon in indoor air is very small amount but always present in our surroundings like CO2, O2.

This Radon gas will cause lung cancer (US EPA report)
In particular cause lethal danger to young children and pregnant women.
Radon is primarily occurring in the soil. However, it may occur in building materials. Therefore, care should be taken in high-rise apartments.
(VOC will be gone after 2~3 year, but radon is forever)

The houses with basements, schools, underground facility are the place of highest risk! Moreover, the higher radon concentration is at dawn that most people sleep.

If it exceeds the reference value 4pCi/l (148 Bq/㎥) to 10 minutes or more to be ventilated,

With the "Radon Eye", Let's keep the health of our children!

RadonFTLab
radonftlab.com
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