Ecosense ET100 EcoTracker Accurate and simultaneous Detection of Radon Gas Over Multiple Locations User Guide

Ecosense ET100 EcoTracker Accurate and simultaneous Detection of Radon Gas Over Multiple Location

Contents

INTRODUCTION

Ecosense is solely dedicated to radon detection and monitoring technology delivering mission critical radon detection performance.
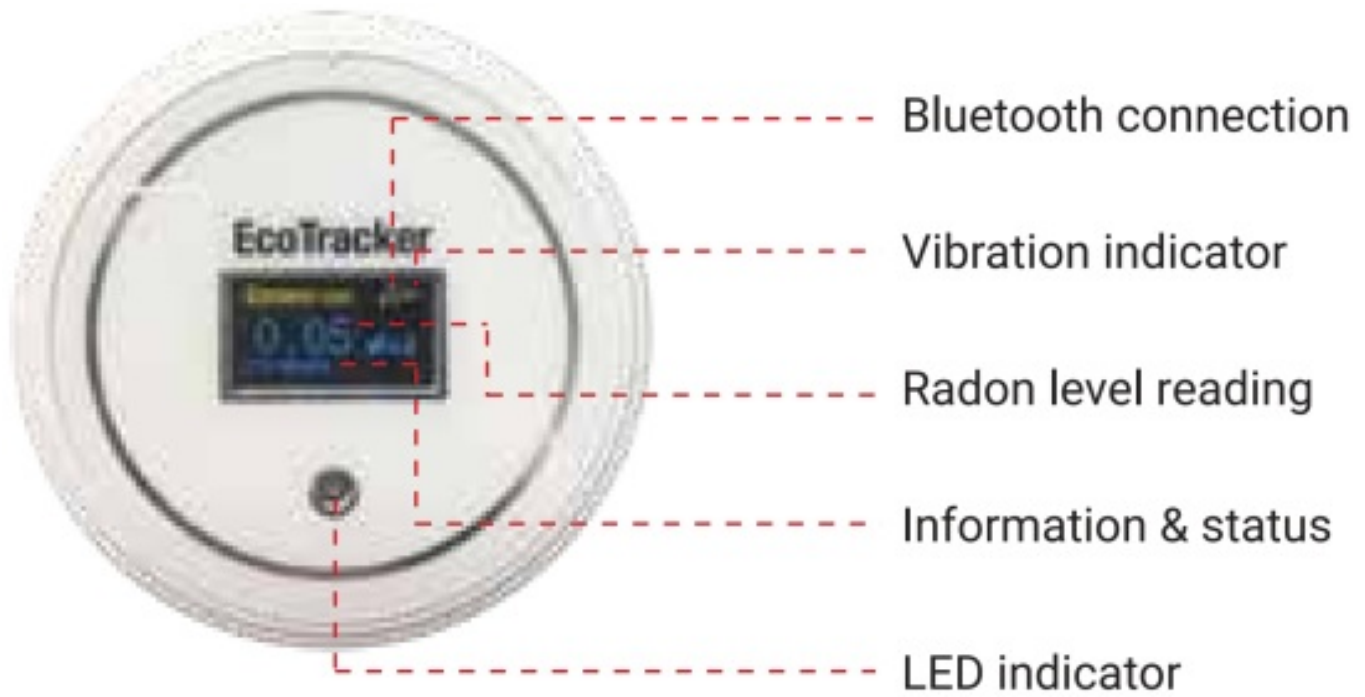
The EcoTracker provides a fast way to locate radon in real-time, integrating the latest high precision patented radon monitoring technology combined with wireless connectivity to deliver an easy to use, fast, highly accurate

and affordable solution for radon professionals.

WHAT'S IN THE BOX

4x Eco Trackers	Product Quality Certificate	Carrying Bag
4x Power Adapters	4x Step-up Cables (For optional battery)	4x DC Extension Cables

EcoTracker's OLED display

- Bluetooth connection
- Vibration indicator
- Radon level reading
- Information & status
- LED indicator

OLED Display Information

STS: READY
Device status indicator – ready to measure radon level after the device powers on. This status is shown until it

saves the first measured data.

STS: NORMAL
Device status indicator – measuring and storing radon level in normal status.

CR: 10 min
Radon reading intervals in continuous mode – displays radon level every 10 minutes based on moving average.

SR: 5 min
Radon reading intervals in sniff mode – displays radon level every 5 minutes.

SR: 10 min
Radon reading intervals in sniff mode – displays radon level every 10 minutes.

H: 4.70 (HOUR)
Hourly radon level average – updates hourly after device power on.

D:1.02 (DAY)
Daily radon level average – updates daily (every 24 hours) after device power on.

M:1.04 (MONTH)
Monthly radon level average – updates monthly (every 30 days) after device power on.

T: 5d 02: 26: 25
Total measurement time after device power on, 5 days 2 hours, 26 minutes and 25 second in this example.

ERR
Unknown error status, please contact support@ecosense.io if this is displayed.

OVER
Radon reading is above the maximum measurable range. (255 pCi/L or 9,435 Bq/m³)

PEAK: 3.86
Highest radon reading after device is turned on, reset when device is turned off and then on.

C:#/# C:
alpha count in the current 10 minutes reading cycle / alpha count in the previous 10 minutes reading cycle. I.e., C:2/3 –> 2 alpha counts in the current 10 minutes reading cycle and 3 alpha counts in the previous 10 minute cycle. This is how the radon reading is calculated in radon units by measuring the count that occurs when radon decays. The larger the count, the higher the radon value.

The display information (H:, D:, M:, T:, and C:#/#) will reset when the device is powered off and then on. However, all the measured and logged data will remain in the device.
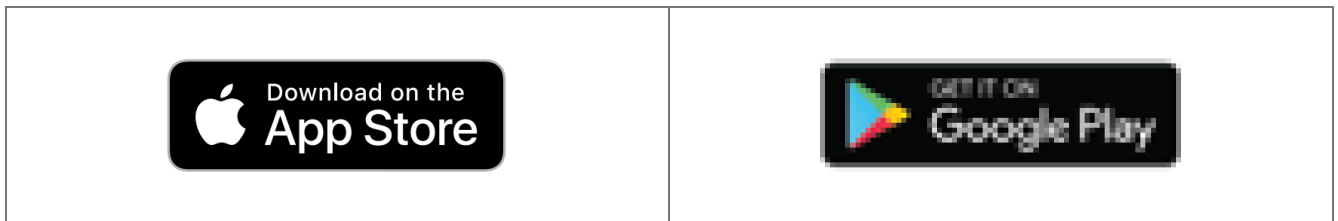
Vibration indicator

Indicator turns on when the device detects vibration that the device was moved from the original location.
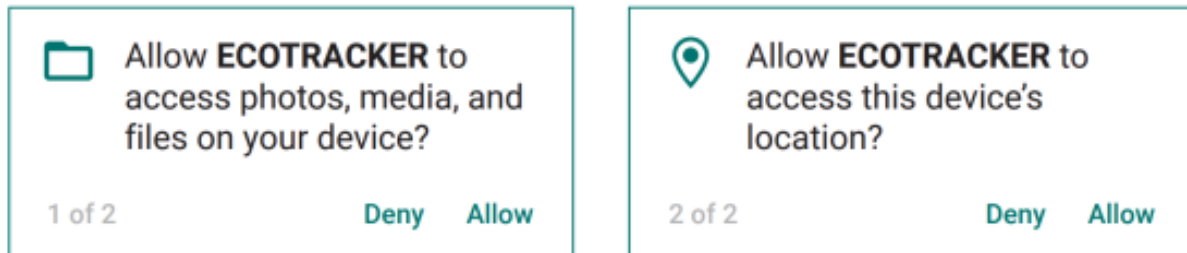
EcoTracker SETUP

1. Connect the power adapter to turn on the device.

2. Download and launch the EcoTracker by Ecosense app.

3. For Android users, notification for file access is required for exporting data and notification for location access is required when Bluetooth is in use. Tap "Allow" when prompted with messages such as "Allow EcoTracker to access photos, media, and files on your device?" and "Allow EcoTracker to access this device's location?"


4. Enable Bluetooth on your phone to pair with EcoTracker(s). The EcoTracker app will pair with all monitors within range. Once monitors have completed boot up sequence, you should be able to see all the monitors and their radon readings in the app.

5. For further setting of each device configuration, click each device shown on the "Device List" menu/page accessed by clicking the hamburger menu on the top left corner.
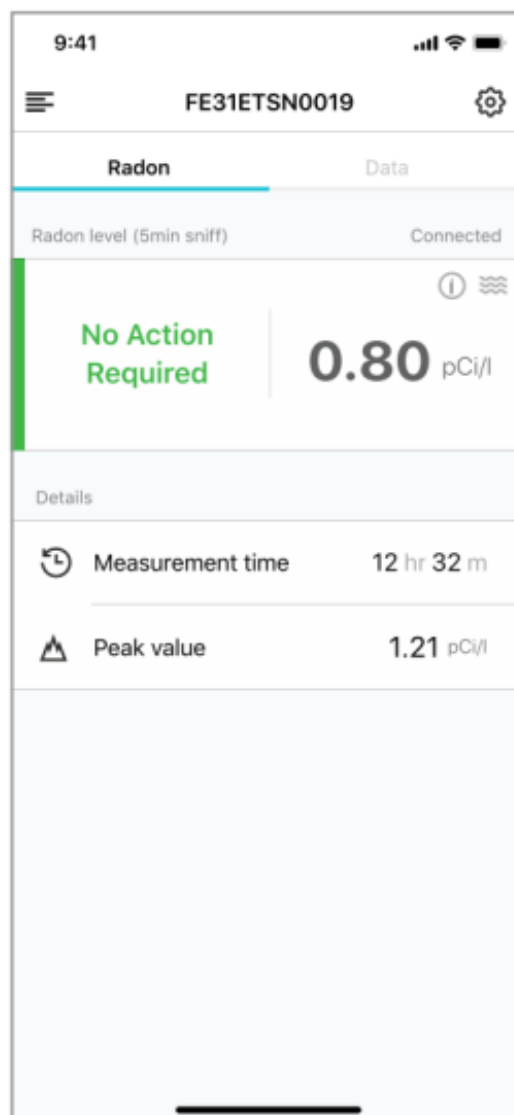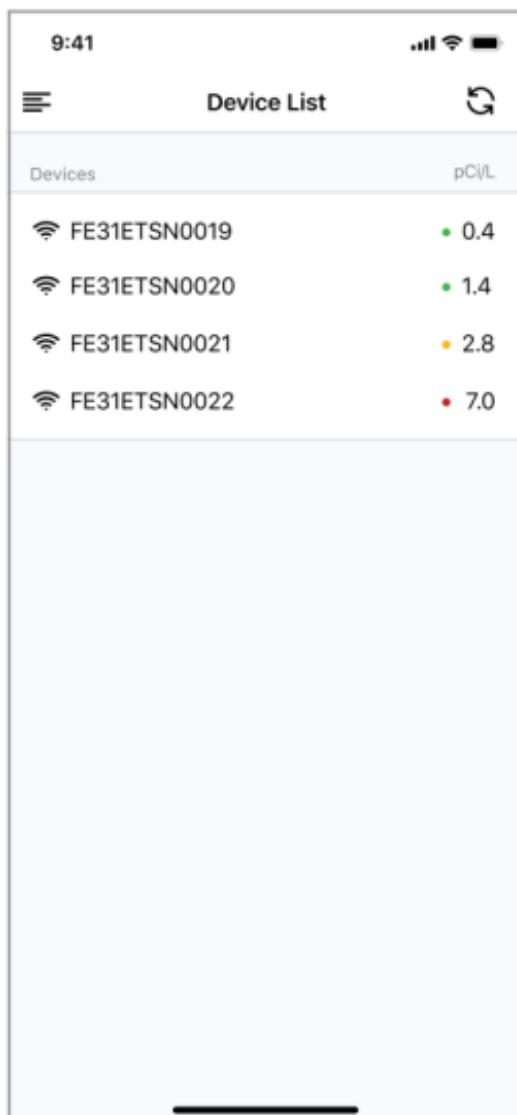
DEVICE SETTINGS

- **Hotspot sniff mode:** Turn on and off hotspot sniff 5 minutes or 10 minutes mode
- **Continuous monitoring:** Turn on and off continuous monitoring
- **Erase all data:** Erase all radon data from the device
- **Unit setting:** Select measurement unit (pCi/l or Bq/m3)
- **Alarm setting:** Turn on and off device audio alarm based on Alarm value
- **Alarm value:** Set alarm threshold radon value · Alarm interval: Set alarm interval value
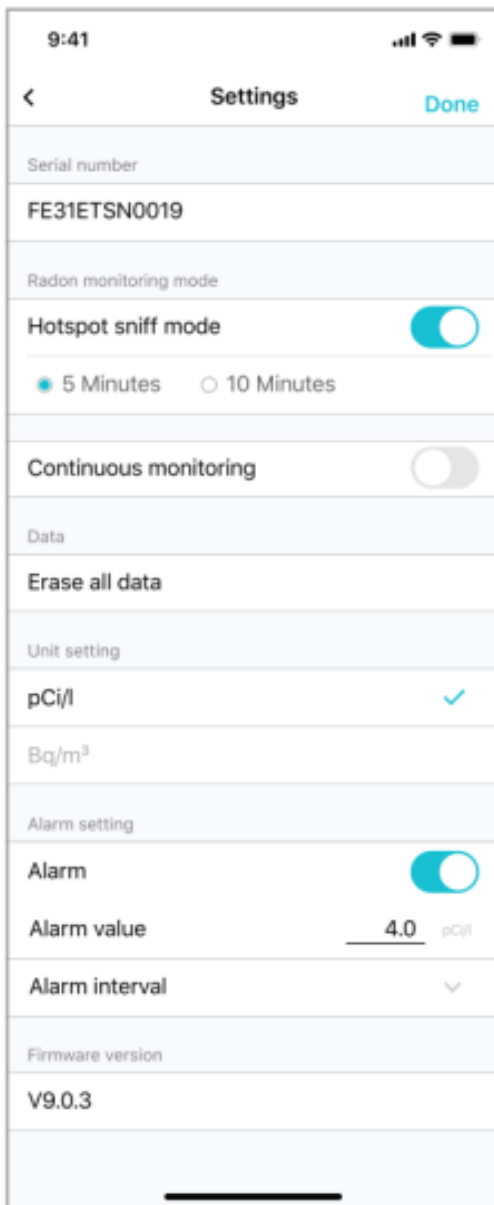
Radon Sniff Mode
EcoTracker supports 5 minutes and 10 minutes sniff mode.

· 5 minute sniff mode (Default) / **10 minute sniff mode**
Radon data will be updated and logged every 5 or 10 minutes. Data can be stored up to 1 month (5 minute sniff mode) or 2 months (10 minute sniff mode). When switching the sniff mode between 5 and 10 minutes, the data will be reset. Before reset, the app will ask if you want to save previously stored data.
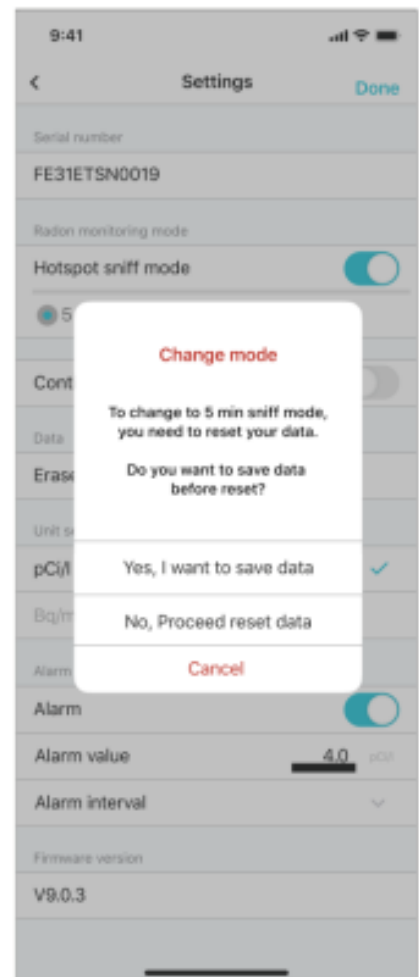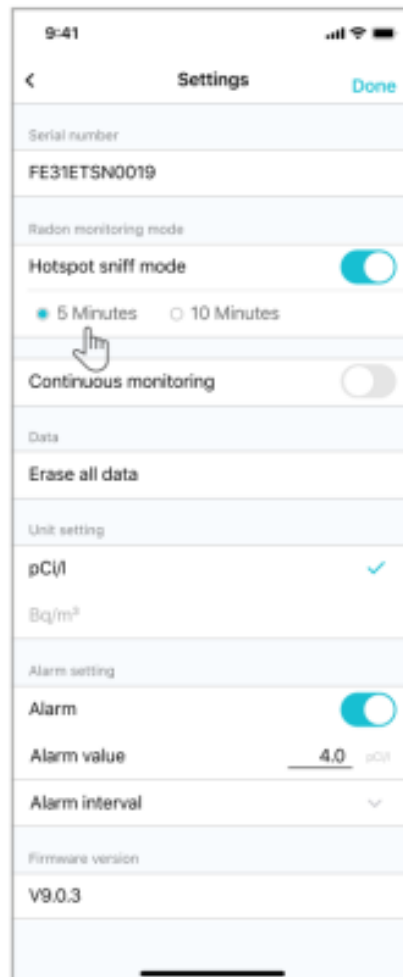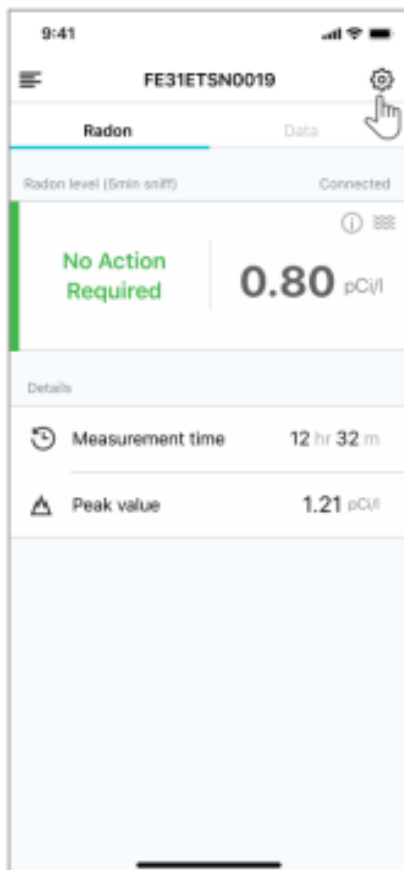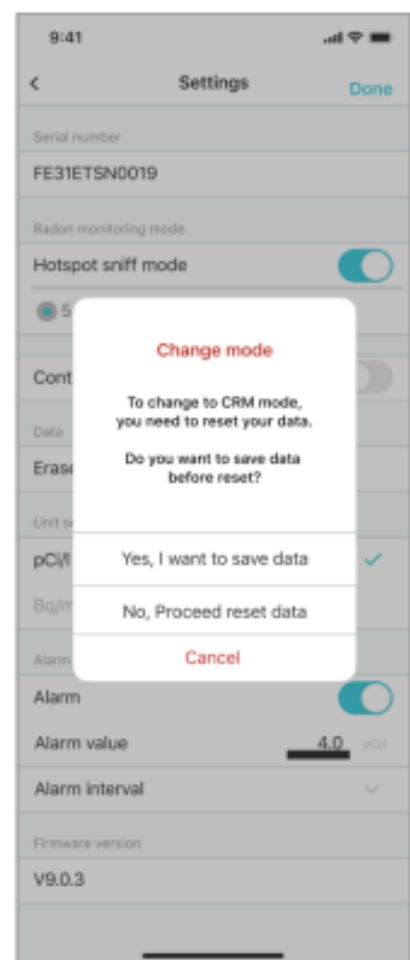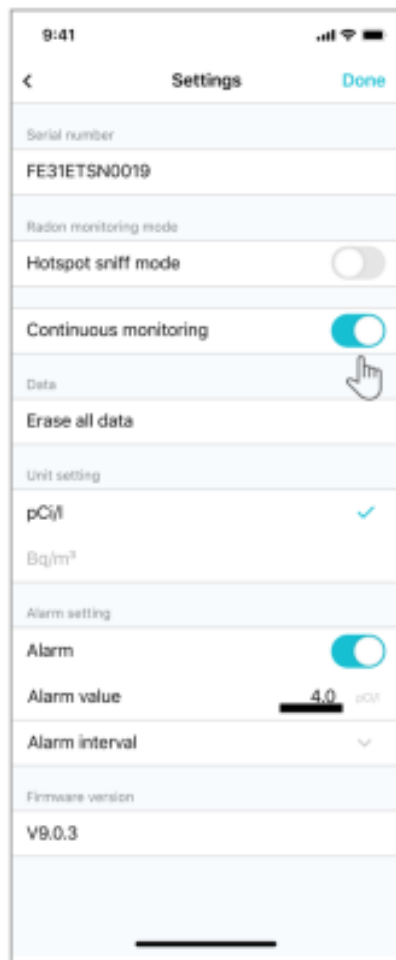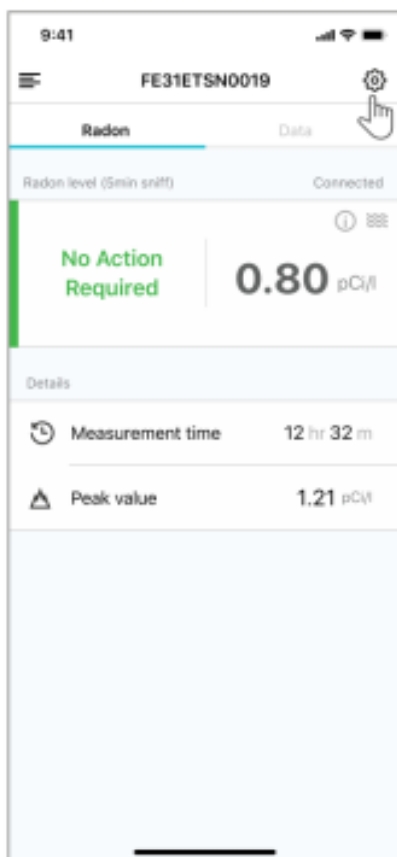
Continuous Radon Monitoring Mode
EcoTracker supports continuous radon monitoring mode.

- **CRM mode**
  Radon data will be updated every 10 minutes and logged every hour. Data can be stored up to 1 year if the device is set to CRM mode. When changing CRM mode to the sniff mode, data will be reset. Before reset, the app will ask if you want to save previously stored data.

HOW TO SAVE OR EXPORT DATA

1. Go to the Data tab and click Save Current Log data.
2. Enter the file name and click Save. Saved data can be found from Saved Log Data under the main menu (Hamburger menu ☰ on the top left corner).
3. If you would like to share, click the Export button 📤 from the top right corner and send it via email, text message, or in the case of iOS, you can save the file locally to the iPhone/iPad storage. Android based platforms do not support this local storage.
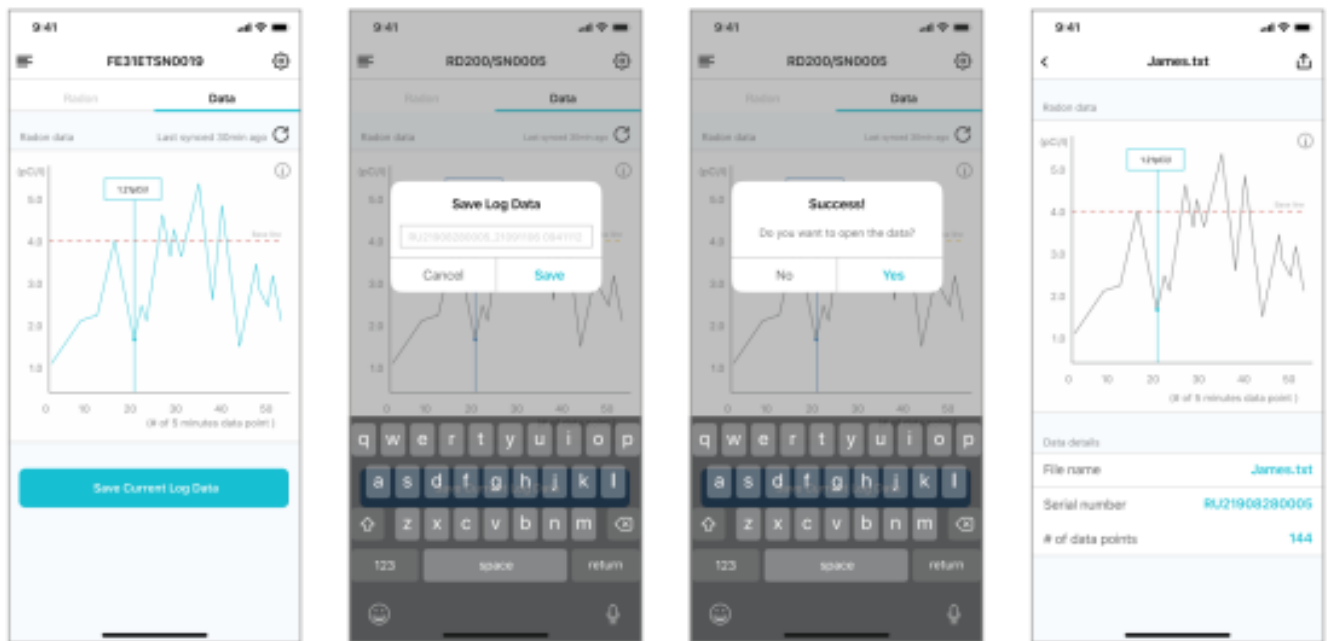
TECHNICAL SPECIFICATIONS

Type
Pulsed ion chamber
Data storage interval
Stores every 5 min or 10 min in sniff mode
Stores every 60 min (moving average) in CRM mode
Data storage capacity
5 minutes sniff mode: 1 month
10 minutes sniff mode: 2 month
Continuous radon monitoring mode: 1 year
Sensitivity
30 cph/pCi/L
Accuracy/Precision (95% confidence interval; applicable for CRM mode)
< ±10% at 10 pCi/L after 10 hours
Operating range
0~40°C (32°F ~ 104°F),
Relative Humidity < 80%
Measurement range
0.2 ~ 255 pCi/L (7~9,435 Bq/m³)
Power consumption
DC 12V, 0.1A
Size, Weight
Φ80 mm x 120 mm, 240 g
Data communication
Bluetooth LE (Android/iOS)
Display
0.96 inch OLED
Operating System
iOS 13 and Android 5.0 or later

EcoTracker OPERATION GUIDELINE

- Only use the 12V DC adapter that comes with the EcoTracker device.
- Use the step-up cable (5V to 12V) provided when using the Li-ion battery (>20Ah) as the power source.
- Do not stack devices with batteries. Doing so can cause inaccurate readings to be logged.

- Using the device in areas with strong vibration or electromagnetic waves is not recommended. They can affect the measurement results.
- This device is intended for indoor use in an area with humidity of less than 80%. Please do not use in areas with condensation.
- The device should be used in temperatures between 32°F ~ 104°F (0~40°C)

ECOSENSE SUPPORT

We are happy to help and can be reached via email at: **support@ecosense.io** Monday – Fridays, 8 am to 5 pm Pacific Time Zone (Except holidays)

LIMITED WARRANTY

Ecosense warrants that it's products shall substantially conform to its product specifications and be free from defects in design, materials and workmanship under the normal use and service for which the products were designed for a period of twelve (12) months, calculated from the later of the date of purchase or delivery if ordered on the internet.

See **www.ecosense.io/support** or contact Ecosense support at **support@ecosense.io** for further warranty and liability information relating to this product.

SAFETY AND MAINTENANCE

The Ecosense EcoTracker is intended for indoor use only. Avoid direct exposure to sunlight for long periods. Avoid exposure to direct heat sources. For correct usage, make sure the product is operating in the specified temperature range (see technical specifications).
Exposure to high humidity might permanently alter the product sensitivity or damage the product. Do not disassemble. If the product does not work as specified or you are in doubt, contact your local dealer or visit us at **ecosense.io**.
Use a dry cloth to clean the product.
Disposal: electronic equipment.

RF Exposure Safety

This product is a radio transmitter and receiver.
It is designed not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission.
The antenna must be installed and operated with minimum distance of 8 inches (20 cm) between the radiator and your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

REGULATORY COMPLIANCE USA

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the Product.
This Product complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This Product may not cause harmful interference, and (2) this Product must accept any interference received, including interference that may cause undesired operation. This Product has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This Product generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this Product does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the Product and receiver.
- Connect the Product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

www.ecosense.io

Documents / Resources

	Ecosense ET100 EcoTracker Accurate and simultaneous Detection of Radon Gas Over Multiple Locations [pdf] User Guide ET100, EcoTracker Accurate and simultaneous Detection of Radon Gas Over Multiple Locations

References

- ⊘ **Ecosene - Fast, accurate and smart radon detector for radon monitoring – Ecosense**
- ⊘ **Ecosene - Fast, accurate and smart radon detector for radon monitoring – Ecosense**
- ⊘ **Support – Ecosense**