

Recon™

Continuous Radon Monitor



The Recon™ is a rugged and versatile radon monitor for professional use. With high sensitivity and high reliability, it is designed for the way you like to test for radon gas. This includes accurate two-day screening tests, one-week radon testing and analysis in public buildings, mitigation job monitoring and long-term monitoring according to Health Canada guidelines.

The Recon functions as a data-logger, storing the measured radon and environmental values in its large memory. Up to 15 sessions of data can be stored in memory.

Your computer handles data analysis and produces reports as PDF files. Use either the Recon Downloading Tool Software (supplied), or the Radon Report Manager software. You can either print these or send to your client by email.

- ◆ Accurate
- ◆ High Sensitivity
- ◆ Environmental Sensors
- ◆ Tamper Detection
- ◆ Rugged
- ◆ Easy to Use
- ◆ Full Reports
- ◆ Calibrated

Typical Applications

1. Short-term Radon Tester

Accurately measure radon gas levels. Produces a finished test report with hourly and average values. Ideal for 2 to 5-day tests in property transactions.

2. One-week Building Characterization

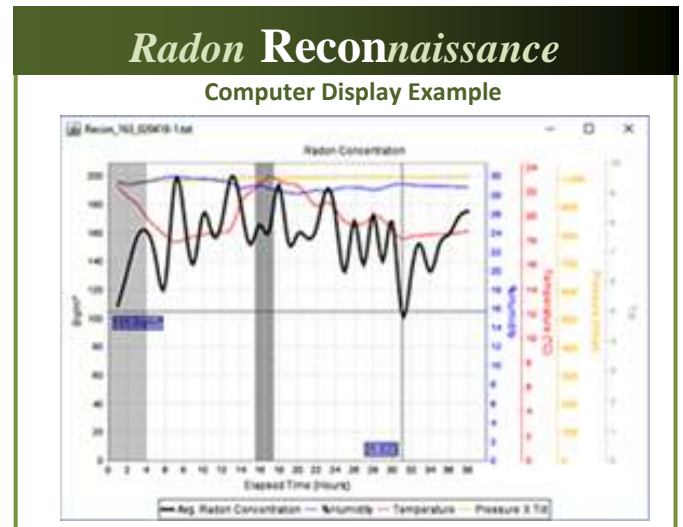
In a radon inspection at a school or commercial building, measure radon during occupied and unoccupied portions of the day. Reports the average radon level and the radon level during occupied times.

3. Radon Mitigation

As the mitigation job progresses, monitor radon levels to suggest mitigation strategy. Measure hourly radon levels during the full time that you are on-site to determine mitigation effectiveness.

4. Building Science Research

The reports are hourly; data is stored internally in 10-minute intervals. The raw data can be imported by Excel, Matlab and other analytical software for detailed analysis.



Included with the Recon Radon Monitor

- Recon Download Tool software on USB drive for Windows, Mac OS and Linux
- USB data cable
- Battery charger, universal voltage
- Radon QA/QC plan
- User's Manual
- Calibration certificate



Report Includes

- Deployment details
- Average measured radon level
- Environmental data
- Profile graph
- Hourly data
- Tamper indication

Optional Item

- Heavy-duty carry case, rugged, hard-side, lockable



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High Reliability

The Recon uses high-sensitivity solid state alpha decay sensors for radon gas that are not affected by temperature, humidity, radon daughters, air currents or gamma radiation levels. This produces hourly data with high accuracy. It uses instrument-grade sensors to continually record environmental parameters.

The environmental sensors help ensure test validity, repeatability and serve in interpreting the results.

The Recon requires annual calibration to meet C-NRPP quality control requirements in Canada.

Recon Colour Customization

Panel Colour
 Standard Light Grey
 Optional Black

Button Colour
 Standard Black
 Optional Ivory

Bumper Colour
 Standard Black
 Optional Blue
 Optional Grey

Specifications

- Output Reading: Radon gas concentration (Rn-222)
- Measurement Type: Continuous Radon Monitor (CRM)
- Sampling Method: Passive air diffusion with no moving parts
- Detector: Solid state alpha detectors in dual ion chambers
- Units: Bq/m³ or pCi/L (selectable) in report
- Sensitivity: 0.38 CPH per Bq/m³ (13.5 CPH per pCi/L) typical
- Lowest Level of Detection: 22 Bq/m³ (0.6 pCi/L) for hourly values
- Tamper Detection: Accelerometer to detect movement. Adjustable sensitivity
- Controls: Keyed switch for RUN/STOP/OFF with keypad lock-out during test
- Time: Internal real-time clock
- Power Supply: Internal NiMH rechargeable battery, 96-hour capacity
- Battery Charger: Universal 100-240 V, 50-60 Hz
- Compact Size: 18.5 x 13 x 7.5 cm (7.3" x 5.1" x 3.0") including rubber bumpers
- Light Weight: 0.85 kg (1.9 lb.)
- NRPP Approval: Device code 8204 (Canada and USA)
- Memory Capacity: 255 days
- Environmental Sensors: Temperature, humidity, barometric pressure
- Reliability: Self test at power-on
- Operating Temperature: 0 - 40° C
- Operating Humidity: 0 - 85% RH
- Sampling Interval:
 - Ten minutes for internal data storage
 - One hour for reports
- Timer: To set test start and test duration. Selectable
- Display: LCD, backlit. Selectable ON/OFF Shows time, current and total test radon concentration, temperature, humidity, barometric pressure
- Deployment: Desktop, shelf or tripod mount
- One-year factory warranty

Report Examples

Radon Test Report
18 Feb 2018

Customer Information: Central School
 Test Site: Main Building

A RadEtec Recon® CRM (NRPP Device Code #8204) was used for radon screening measurements that conducted at the above referenced test site by: Charrange Radon Busters.

The results are as follows:

Serial#	Instrument	Location	Start Date/Time	End Date/Time	Result
163	Recon CRM	Basement	02-16-2018 14:00	02-18-2018 13:37	

Average Radon Concentration in: Basement 209 Bq/m³

Analysed By: Dave
 Deployed By: Dave
 Retrieved By: Dave

Cal. Date: 1/5/2018 (Cal. Due: 01/2018)

Protocol: Good Building Conditions Met
 Tampering: No Tampering Detected
 Weather: No Abnormal Weather Conditions
 Mitigation: No Mitigation System Installed
 Comment: Thanks for the business!

Radon Health Risk Information

Short-term radon measurements were conducted according to Health Canada Guidelines. Radon is the leading cause of lung cancer amongst non-smokers, and the second leading cause of lung cancer for long-term smokers. Radon tests are recommended. Health Canada recommends that remedial measures be taken when the average radon concentration exceeds 200 Bq/m³ in the normal occupancy areas. Higher the building radon level, the greater the health risk to the occupants. The average radon level in Canadian homes is 45 Bq/m³. Reducing your radon level can be done effectively and fairly in extensive. Even homes with very high radon levels can be remediated. Please refer to the guide "RADON: Radon Guide for Canadian Homeowners", published by Health Canada, for further interpretation and for determining if remedial measures are needed.

Graphical Radon Report
18 Feb 2018

Customer Information: Central School
 Test Site: Main Building

A RadEtec Recon® CRM (NRPP Device Code #8204) was used for radon screening measurements that conducted at the above referenced test site by: Charrange Radon Busters.

The results are as follows:

Serial#	Instrument	Location	Start Date/Time	End Date/Time	Result
163	Recon CRM	Basement	02-16-2018 14:00	02-18-2018 13:37	

Average Radon Concentration in: Basement 209 Bq/m³

Graph showing Radon Concentration (Bq/m³) on the Y-axis (0 to 300) and Elapsed Time (hours) on the X-axis (0 to 50). The graph displays Radon Concentration (black line), Humidity (%) (blue line), Temperature (°C) (red line), and Pressure (kPa) (green line).

Hourly Radon Report
18 Feb 2018

Customer Information: Central School
 Test Site: Main Building

A RadEtec Recon® CRM (NRPP Device Code #8204) was used for radon screening measurements that conducted at the above referenced test site by: Charrange Radon Busters.

The results are as follows:

Serial#	Instrument	Location	Start Date/Time	End Date/Time	Result (Bq/m ³)
163	Recon CRM	Basement	02-16-2018 14:00	02-18-2018 13:37	209

Average Radon Concentration in: Basement 209 Bq/m³

Record#	Date/Time	Radon (Bq/m ³)	Temperature (°C)	Pressure (kPa)	Humidity (%)	File
1	2018-02-16T14:00	210	13	101.0	73	0
2	2018-02-16T14:10	210	13	101.0	73	0
3	2018-02-16T14:20	210	13	101.0	73	0
4	2018-02-16T14:30	210	13	101.0	73	0
5	2018-02-16T14:40	210	13	101.0	73	0
6	2018-02-16T14:50	210	13	101.0	73	0
7	2018-02-16T15:00	210	13	101.0	73	0
8	2018-02-16T15:10	210	13	101.0	73	0
9	2018-02-16T15:20	210	13	101.0	73	0
10	2018-02-16T15:30	210	13	101.0	73	0
11	2018-02-16T15:40	210	13	101.0	73	0
12	2018-02-16T15:50	210	13	101.0	73	0
13	2018-02-16T16:00	210	13	101.0	73	0
14	2018-02-16T16:10	210	13	101.0	73	0
15	2018-02-16T16:20	210	13	101.0	73	0
16	2018-02-16T16:30	210	13	101.0	73	0
17	2018-02-16T16:40	210	13	101.0	73	0
18	2018-02-16T16:50	210	13	101.0	73	0
19	2018-02-16T17:00	210	13	101.0	73	0
20	2018-02-16T17:10	210	13	101.0	73	0
21	2018-02-16T17:20	210	13	101.0	73	0
22	2018-02-16T17:30	210	13	101.0	73	0
23	2018-02-16T17:40	210	13	101.0	73	0
24	2018-02-16T17:50	210	13	101.0	73	0
25	2018-02-16T18:00	210	13	101.0	73	0
26	2018-02-16T18:10	210	13	101.0	73	0
27	2018-02-16T18:20	210	13	101.0	73	0
28	2018-02-16T18:30	210	13	101.0	73	0
29	2018-02-16T18:40	210	13	101.0	73	0
30	2018-02-16T18:50	210	13	101.0	73	0
31	2018-02-16T19:00	210	13	101.0	73	0
32	2018-02-16T19:10	210	13	101.0	73	0
33	2018-02-16T19:20	210	13	101.0	73	0
34	2018-02-16T19:30	210	13	101.0	73	0