## <u>geotech</u>

The next-generation electronic radon monitor that reimagines scientific-quality radon/thoron measurements. This state-of-the-art device comes packed with top-to-bottom upgrades and cutting-edge technologies, outperforming its predecessor, the industry-standard RAD7, to set new benchmarks in accuracy, reliability, and efficiency. Designed for diverse applications, including air quality testing, health physics, geology, and environmental remediation, RAD8 delivers unmatched sensitivity, transparency in data access, and rapid recovery from high radon concentrations. Its rugged, all-weather design ensures worry-free usage in any environment, making it the ultimate choice for both fieldwork and laboratory settings.

### **FEATURES**

• **Revolutionary Sensitivity:** 70% higher sensitivity compared to the industry standard RAD7

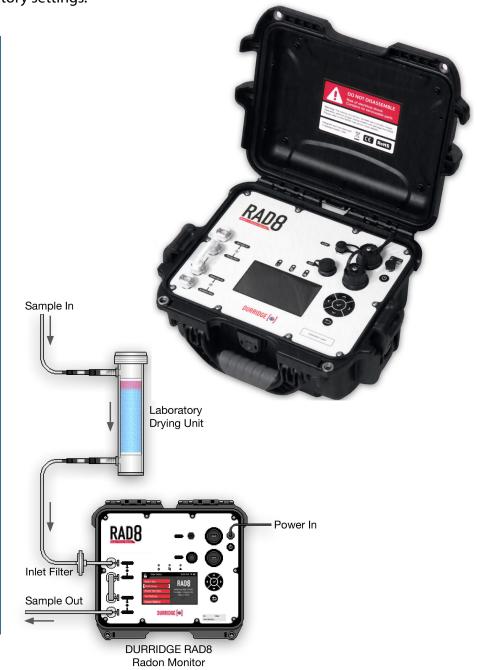
• Rugged, All-Weather Design: Environment-proof, super portable design with IP67 water/dust resistance

• **Transparent Data Access:** Unparalleled access to spectrometry data, including raw sensor counts

• Unmatched Species Discrimination: Measure radon and thoron independently and simultaneously with high-resolution alpha spectrometry

• Fast Recovery & Time Savings: RAD8 quickly recovers from high radon concentrations in minutes, not hours

• Intuitive Touchscreen & Pre-Programmed Protocols: Pre-programmed testing protocols on a high-visibility color touchscreen with glove-friendly pushbutton controls.



#### CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc. 2650 East 40th Avenue Denver, Colorado 80205 (303) 320-4764 FAX (303) 322 7242 email: <u>sales@geotechenv.com</u> website: <u>www.geotechenv.com</u>

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Functionality & Specifications							
Modes of Operation	<ul> <li>RAPID - mode calulates radon concentration from counts of the polonium-218 alpha peak in the A Window</li> <li>PRECISE - mode calculates radon concentration from counts of polonium-218 and polonium-214 in the A and C windows to achieve higher statistical precision.</li> <li>AUTOMATIC - mode switches from Rapid to Precise mode after three hours of continuous measurement to combine the benefits of rapid response and statistical precision.</li> <li>RAD H2O - modes work with the Durridge RAD H2O water accessory kit to measure radon concentrations in aerated water samples of specific volumes.</li> </ul>						
Preset Test Protocols	<ul> <li>SNIFF protocol applies the Rapid analysis mode to continuously pumped air samples for spot readings.</li> <li>1-day and 2-day protocols apply the Automatic analysis mode to air samples pumped with a Standard 40% duty cycle for 24-hr or 48-hr, respectively.</li> <li>Continuous protocol applies the Automatic analysis mode to air samples pumped indefinitely with a Standard 40% duty cycle.</li> <li>Grab protocol applies the Rapid analysis mode for 20-min to air samples that are briefly pumped into the chamber.</li> <li>H2O 40-ml and 250-ml protocols apply the Rapid analysis mode for 20-min to air samples that are briefly pumped into the chamber from Durridge water accessories.</li> </ul>						
Data Storage	16 GB holds millions of records, each with full sensor and spectrum data						
Sample Pumping	Built-in 0.6 L/min air sample pump with bypass option for external pumping						
Connectivity	Wi-Fi, 2 USB ports, COM port, Accessory port						
Audio Output	Multiple audio output options for real-time communication of detection events						
Tamper Resistance	Password-protected lock screen secures RAD8 against tampering; RAD8 case securable with pad- locks						
Operation	Electrostatic collection with silicon detector and alpha spectrometry						
Built-In Air Pump	Nominal 0.6-L/min flow rate Inlet and outlet ports sealed when not in use						
Accuracy	+/-5% absolute accuracy, 0% - 100% RH						
Nominal Sensitivity	Rapid mode, 0.40-cpm/(pCi/L), 0.011-cpm/(Bq/m3) Precise mode, 0.82-cpm/(pCi/L), 0.022-cpm/(Bq/m3)						
Radon Concentra- tion Range	0 - 270,000-pCi/L (0 - 2.5MBq/m3)						
Intrinsic Background	$0.0015 \pm 0.0004 \text{ pCi/L}$ (0.06 $\pm 0.02 \text{ Bq/m3}$ ), for the life of the instrument						
Recovery Time	Residual activity in Sniff mode drops by factor of 1,000 in 30 minutes						
Operating Range	<b>Temperature</b> : 32° - 122°F (0° - 50° C) <b>Humidity:</b> 0% - 100%, non-condensing						
Cycle Range	User controllable number of Cycles, from 1 to unlimited, per Test. User controllable Cycle Time, from 5 minutes to 24 hours						
CAPTURE software	<ul> <li>Graphs radon, thoron, temperature, humidity, and barometric data over time</li> <li>Statistical analysis tools track concentration averages and uncertainties</li> <li>Automatic correction for humidity and other factors</li> <li>Automatic RAD8 connection, data download, and real-time status monitoring</li> <li>Control RAD8 operations from computer via direct or remote connection</li> <li>Browse RAD8 data stored on Capture Cloud</li> <li>Compatible with all major versions of Windows and macOS</li> </ul>						

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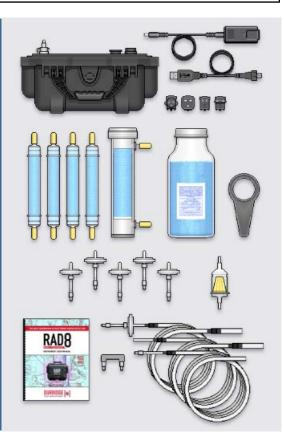
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Functionality & Specifications Cont.						
Dimensions	12.5" x 10.1" x 6" (31.8 x 25.7 x 15.2 cm)					
Weight	7.4 pounds (3.35 kg)					
Touchscreen	IPS 480 x 272 full color touchscreen, sunlight readable, wide viewing angle					
Case Material	MIL-SPEC certified, IP67 rated					
Battery	Rechargeable IATA-compliant 99-Wh lithium ion 24 hours in Rapid Analysis Mode; 72 hours in Precise Analysis Mode					
Power Supply	11-15V DC (12V nominal) @ 2.5A, center pin positive					

### **COMPONENTS & ACCESSORIES**

- External 12V Power Adaptor
- 4 Small Drying Tubes
- 1 Laboratory Drying Unit
- 5-lb Jar Indicating Desiccant
- 1 Dust Filter
- 6 Inlet Filters
- 4 Extra Straight Fittings
- Vinyl Tubing Set
- Waterproof USB Cable



#### **TOUCHSCREEN DISPLAY**

Main Menu	20:39 奈 98% 🖾	5	Select Protocol Preset Protocols	20:24 🔶 98%1		5 Test Status 17:48 奈 97% — Test in Progress Cycle: 1/48 Time Left: 00:36:55
Start Test>Test Status>	<b>RAD8</b> Sep 29, 2022	^	Sniff 1-Day	Cycle Count 48 Cycle Time 1H 0M Pump Mode Standard Pre-Test Purge 0H 0M	1H 0M Standard	Current Cycle Average: Radon: 23.84±3.4 pCi/L age Thoron: 3.72±2.2 pCi/L
Browse Radon Data > System Settings >		Page 1/2	2-Day Continuous	Pre-Test Delay OH OM Analysis Mode Auto Sample Source Standard Thoron Display Yes		I/2     Protocol: Manual     Analysis Mode: Auto       V     Temp: 79.2°F     RH: 38.4%     Baro: 993.4 mbar
About >		~	Grab	Run	>	Summary Chart Spectrum 🔅

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