RAD7 Electronic Radon Monitor/Sniffer

- It is both a sniffer and a continuous monitor
- Measures both radon and thoron. Shows both on the spectrum printout.
- Fastest response and recovery times of any electronic monitor/sniffer on the market.
- Easiest to use. Microcomputer directs you, step by step, so you can do what you want to do.
- Programmed set-ups for often used tests.
- All-in-one complete, compact, portable unit in handsome rugged carrying case.
- Weighs just 11 pounds (5 kg).
- Measures EPA action level of 4 pCi/l in just one hour.
- Recovers from radon highs in minutes - not hours.
- Displays, prints and downloads data in your choice of units.
- Audible radon and thoron counts. Lets you hear the hot spots.
- Tamper-proof key-lock command secures your RAD7. Assures proper testing.
- Spectrum printout verifies correct operation of instrument in field.
- Hewlett-Packard IR printer included in price. Infra-red data link for on-the-spot printouts.
- Rechargeable batteries.
- Built-in air pump.
- RS-232 port

RAD7 is everything you ever wanted, or will ever need, in an electronic radon monitor.

The RAD7 is so easy to use. It's ready to operate from the moment you turn it on. The first thing you will see is the Setup Review, showing the current settings. This allows you to check that your machine is set up the way you want it for your intended use.

Now you and your RAD7 are ready to go to work. The machine is preset for a 1- or 2-day test... or you can preset for your particular job that day. When you arrive on site, just push the buttons and the test runs automatically.

A RAD7 exclusive feature is "Auto" mode. This starts a test in Sniff mode for quick response, a base-line reading. After 3 hours it automatically switches to "Normal" mode for the remainder of the test, assuring statistical precision.

You can leave your RAD7 for a 24-hour, 48-hour or any-hour test, knowing that the measurements will be correct, thanks to a RAD7 "exclusive feature" - a "Test Lock" command that locks the machine until you return. The test continues, and no amount of tampering - intentional or unintentional can influence it.

The RAD7 is, indeed, a remarkable machine - a truly versatile radon detector of mature and yet still state-of-the-art design. Its specifications match or exceed those of the most expensive models in the world. At the same time, it incorporates a number of exclusive features that are found in no other radon detector, regardless of price. Incredibly, the RAD7 is affordable.

The RAD7 is a sophisticated measuring instrument that is able to handle complex measurements. It is used in laboratories and research work around the globe, by radon testers, mitigators and home inspectors, in mines and deserts, on the ocean and up volcanoes, at extremes of temperature.

The RAD7 is also the simplest computer-driven electronic detector to use, with pre-programmed set-ups for common tasks. It's built to withstand everyday use in the field. A rugged, handsome case encloses the detector, which is self-contained and self-sufficient.

The RAD7 comes complete, with a built-in air pump, rechargeable batteries, and a Hewlett-Packard alpha-numeric graphics printer with infra-red link. The printer can be left in your office or your car, when desired, and the detector will collect data and store it for later printing or downloading to a PC.

The RAD7 is a Sniffer that uses the 3-minute alpha decay of a radon daughter, without interference from other radiations, and the instantaneous alpha decay of a thoron daughter. Sniffs out entry points and radon gushers. Recovers in minutes from high radon exposures. The RAD7 is a Continuous Monitor that measures the EPA action level of 4 pCi/l, with 10% standard deviation, in one hour.
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SPECIFICATIONS

MULTI-MODES
Continuous Radon Gas Monitor
Long-term/Short-term screener
Sniffer, with small tube "snout", to search for radon and thoron entry points.
Grab mode protocols for radon in air and water.

MULTIMEASUREMENTS
Measures radon in air, soil, and water (with RAD H2O and RAD AQUA accessories).

NOMINAL SENSITIVITY
Monitor: 0.5 counts/min/pCi/l
Sniffer: 0.25 counts/min/pCi/l

RANGE
0.1 ----> 20,000 pCi/l (4 ---> 750,000 Bq/m3)

MEMORY
1,000 radon concentrations, and associated data. Can be read out on LCD,
downloaded to PC and/or printed out on HP IR printer. Summary of run shows high,
low, average and standard deviation of readings.

PRINCIPLE OF OPERATION
Electrostatic collection of alpha-emitters with spectral analysis.

BUILT-IN AIR PUMP
Nominal 1 liter/minute flow rate. Inlet air filter
Inlet and outlet air connectors.

SPECTRUM PRINTOUT
High-precision alpha-energy spectrum identifies isotopes in radon and thoron decay
chains. Shows proper operation of RAAD7 and enables superior RAD7 functionality.

FAST LOWLEVEL READINGS
In Continuous Monitor mode, RAD7 measures the EPA action level of 4 pCi/l in just
1 hour (60 minutes), with standard deviation of 10%. Since the RAD7 has virtually
no background, it has a much lower detection threshold than other electronic
detectors, easily measuring down to below 0.1 pCi/l

RECOVERY IN MINUTES
ReCOVERS from high radon exposure with a 3.05 minute half-life: to less than 10% of
peak value in 12 minutes; to less than 1% of peak value in less than 30 minutes.
Drops from 20,000 to 1 pCi/l in one hour.

TAMPER RESISTANT
A "Test Lock" command is programmed into the machine to secure your RAD7
against all kinds of intentional or unintentional tampering.

AUTO MODE
This setting starts a test run in Sniff mode, then switches to Normal mode after the
first 3 hours. No more waiting for equilibrium. Gives quick response, followed by
statistical precision.

COMPUTER LCD DISPLAY
2 line X 16 character, alpha-numeric, easy-to-read display.

AUDIBLE RADON COUNT
Indicates presence and intensity of radon and thoron. May be turned on or off.
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POWER
AC or battery powered - 5 AH 6V batteries. Automatic charge when plugged in and
switched on. Continuous battery operation: 24 hours in Sniffer mode; 72 hours in
Monitor mode.

PRINTER
Hewlett-Packard Model HP 82240B

RS-232 PORT
Computer or modem hookup.

OPERATING RANGE
Temperature: 30° - 105° F.(0° - 40° C.)
Humidity: 0 - 100%, non-condensing.

WEIGHT/SIZE
11 pounds (5 kg) complete— 9.5" X 7.5" X 10.5"

CASE MATERIAL
High density polyethylene.