

# Femto-TECH




## Continuous Radon Monitor



**BIOMATION is Proud to Introduce the  
Femto-TECH CRM-510LP Continuous Radon Monitor**

***Accurate! Efficient! Easy to Use!***



-  This is truly a State-of-the-Art system for providing radon testing services.
-  No other radon monitor available today can provide you with a more comprehensive test for your clients.
-  Read on and see why the CRM-510LP is in such demand.

The femto -TECH model CRM- 510LP is a precision radon detection instrument based on the same field-proven pulsed ion chamber technology of previous models R210F and RS410F. Due to a unique patented electrometer and open grid design, the CRM- 510LP is highly suited to a wide range of radon measurement applications.

Because of the low current requirements of the electrometer detector and on- board computer, the new Low- Power model CRM-510LP is a fully-portable self-contained continuous radon monitor that can read and record hourly test data for eight days of stand- alone operation. In this mode of operation it is uniquely suited for screening and follow-up testing.



The full-function computer system incorporated in the model CRM-510LP provides the operator with a highly flexible radon detection instrument and data logger while still maintaining the simplicity of operation for which femto- TECH instruments are noted. In addition to the measurement and storage of radon data, the highly sophisticated on-chip peripheral capabilities of the CRM- 510LP provide for the measurement and storage of temperature, barometric pressure, and relative humidity. This multidimensional data acquisition capability provides the tester with a unique data base for effectively evaluating the validity of short-term radon measurements.

**BIOMATION**

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Visit our website - [www.biomaticom.com/radon](http://www.biomaticom.com/radon)

**Some of the features offered by this unique combination of computer control and open grid pulsed ion chamber detector are:**

- Real time radon measurements (hourly and total test data)
- Passive sampling (no pumps needed)
- Choice of units (pCi/L or Bq/m<sup>3</sup>)
- Temperature (°F or °C)
- Barometric pressure ( Hg or kPa)
- Relative humidity (%)
- Windows™ compatible (data downloadable to PC Windows 95 and above)
- Graphic printouts (bar graph)
- Alpha-numeric printouts (table view of data)
- Built-in RS-232 interface port
- Built-in parallel printer port (choice of compatible printers)
- LCD screen display
- Permanent EPROM based operating system
- EEPROM data storage (retains data without battery power)
- Built-in download software
- Keyed security lock
- Anti-tamper motion detectors
- Concealed-screen test mode (stealth mode)
- Real time clock
- Nuclear pulse simulation (systems check at start of each test)
- One-year power pack (no charging between tests)

### **Model CRM-510LP Specifications**

Radiation Detected: Radon-222 Alpha  
Detector: Air Ionization chamber  
Dynamic Range: 1.0 to 200 pCi/L (36 to 74000 Bq/m<sup>3</sup>)  
Units: pCi/L or Bq/m<sup>3</sup>  
Sensitivity: 0.3 CPM per pCi/L (Nominal) (0.008 CPM per Bq/m<sup>3</sup>)  
Linearity: 1 to 200 pCi/L (<10% deviation)  
Tamper Detection Tilt monitor  
Sampling mode: Passive Air Diffusion

#### **OPERATING MODES**

Data Collection: Elapse time displayed  
Data Printing: ASCII text Data, Seiko/Epson graphics data  
Downloading ASCII data  
Data Storage 192 one-hour data points (8 days)

#### **ENVIRONMENTAL SENSORS**

Temperature Range 50 - 104 °F (10 - 40 °C)  
Sensitivity + / - 1 °F (+ / - 0.5 °C)  
Barometric Pressure Range 0 - 38 Hg (0 - 127 kPa)  
Sensitivity + / - 0.2 Hg (+ / - 0.5 kPa)  
Relative Humidity Range 10 - 90%  
Sensitivity + / - 5%

#### **DISPLAY**

Alphanumeric Prompts 16-digit one-line LCD  
Pulse Indicator Red LED

The **CRM-510LP** provides user-friendly and quality features including: **A real Time Clock, Nuclear Pulse Check System and a Power Pack Battery System.** This allows you to perform testing for a full year with no battery charging needed. It is truly what professional radon testers need.

We have also added the ability to upload your test data directly to a template on Windows™ based computers, thus allowing printing, emailing or faxing a complete custom report to your clients.

#### **CONTROLS**

Key Switch: OFF, I/O, & RUN positions  
Two momentary Push Buttons: Multifunction menu driven select & execute

#### **SELF TEST**

All Batteries Alkaline and lithium  
Electrometer Nuclear pulse simulator

#### **EXTERNAL OUTPUT (Male DB-25P)**

Serial: RS-232C  
Parallel: 8 Bit simplified Centronics

#### **POWER**

Electrometer and ion chamber  
Four 9 V alkaline (nominal life 1 Yr.)  
Computer/Data Logger 7.2 V, 7.2 ah lithium (nominal life 1 Yr.)

#### **SIZE**

Height (with Handle) 137 mm (5.4")  
Width 160 mm (6.6")  
Depth 190 mm (7.4")  
Weight 1.8 kg (4 pounds)  
Environmental Operating Range 10 to 40 °C (50 - 104 °F)

*Specifications subject to change without notice*

#### **WHY SHOULD YOU USE A CRM-510LP?**

Our present users tell us: it is the quality of the product, excellent service and support that they receive.

**Most state:** it is the confidence and credibility of knowing that by using an industry standard to perform environmental tests for their clients it will reflect on their reputation.

**We state:** Truly state of the Art Instrumentation! Proven Quality, Service and Support!

Lower cost per test than other methods of detection! USEPA and Industry proficient.

***When you provide the very, best our reputation precedes you!***

**BIOMATION**  
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