



Portable
Sample Counter with STAM-2R

Radium in Water Monitor

Model Series - Radium
Radium-TA and Radium-MCA

Electronics



TBM-3D



PRS-7



MCA-TA



In-Line
Radium Detector

Features

- System Provides on Site Measurements
- Detects Radium: (224, 226, and 228)
- Sensitivity Better than 3 Pico Curie per Liter Total Radium
- 10 Flow Cell Refills (FCR-3) are Standard
- Gamma Rejection
- Portable Radium Detector
- **Optional:** In-Line Radium Detector
- **Model Radium-MCA** Identifies Specific Radium Nuclides

Electronics:

- TBM-3D, PRS-7, or MCA-TA


Description

Multiple Components

- Water Pump (WS-R3)
- Radium Collection Cell (RCC-3)
- Scintillation Detector (STAM-2R)
- Electronics: TBM-3D, PRS-7, OR MCA-TA



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Radium in Water Monitor

Model Series - Radium Radium-TA and Radium-MCA

Three Step Process

- 1) The pump and Radium collection cell are taken to the area to be tested.
- 2) Water is pulled through the cell for a standard period of time.
- 3) The scintillator/scaler, receives the sample and counts the activity.

Note: A longer pull time increases sensitivity and gives a sensitivity measurement down to 1 pCi/liter.

Specifications

Scintillator/Counter:	Model PRS-7 single channel analyzer electronics package is coupled and works in conjunction with sample counter; Model STAM-2R.
Sensitivity:	3 pCi/Liter; 80 to 85% of 2 pi for 5 MeV alphas is typical. Gammas are rejected. Background radiation is typically less than one count per minute.
FCR-3 Flow Cell Refills:	A. Treated Beads; B. Treated ion exchange Disks

ELECTRONICS:

PRS-7 – Bench Top or Portable

- Power: AC or Rechargeable Battery
- Display: Three Single Channel Analyzer Windows, Switch Selectable, Six Decades
- Housing: Splash Proof
- Dimensions: 10" W x 4.1" D x 7" H (25 cm L x 10.5 cm W x 18 cm H) includes handle
- Weight: 5 lbs (2.5 kg) including batteries
- Options:
 - Alarm Relay
 - RS-232, USB, etc. or complete data logging and acquisition systems

MCA-TA – Bench Top

- Electronics: High Quality Windows PC including:
- Operating Software: TAcquire™ custom software plus Excel Spread Sheet
- Radionuclide Library: Radionuclide Library Tailored to Customer Request
- Data: Stores Data to MS ACCESS Database; ata Files are Importable into Excel
- CPU with Data Acquisition: High Resolution COLOR display, Audio
- Data Ports: USB and Ethernet
- USB-Flash Drive: For data storage – 10 years storage
- Terabyte Hard Drive: Stores programs and 20 YEAR'S of Detailed DATA plus alarm record
- Power: 110 VAC - 60 Hz, 220 VAC optional 50/60 Hz
Internal Battery Backup, Fail Safe


Dimensions: 21" W x 16" D x 11" H (53.3 cm L x 40.6 cm W x 27.9 cm H)
Weight: 20 lbs (2.5 kg) including batteries

TBM-3D – Portable

- Power: 6AA Batteries
Display: LED – As Ratemeter – 6 digit; as Scaler 8 digit; User Settable Units;
Push Button Battery Check; 2 Separate Scale Factors for Rate and Total
Computer interface; Audio alarm
- Optional:
Dimensions: 3" W x 5.3" H x 3" D (76mm H x 134mm W x 76mm D)
Weight: 21 oz. (600 grams)



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Model Series - Radium Radium-TA and Radium-MCA

Unit Model Setup and Comparison Chart


SERIES MODEL	RADIUM-TA	RADIUM-MCA
Types of Radium Measured	TOTAL RADIUM Ra-224 & Ra-226 & Ra-228	Alpha Spectrum Identifies Specific Radium Nuclides
Drinking Water Limit	5-15pCi/liter	5-15pCi/liter
Instrument Sensitivity	20 pCi/liter	3pCi/liter
Extended Count	5 pCi/liter	1 pCi/liter

RADIUM SERIES	RADIUM-TA	RADIUM-MCA
Collection Cell	RCC-3	RCC-3
Pump	WS-R3	WS-R3F
Refill	FC-R3	FC-R3
Detection	STAM-2R	SCCA-2R
Alpha Detector Type	ZnS(Ag) Scintillator	Semiconductor Crystal
Analyzer and Display	PRS-7 Digital Scaler	MCA-TA Alpha Spectrometer

These charts show the comparisons and possible component pairings to the Radium Series Models listed on the cover page



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Options: Additional Sensors and Gauges




Water Sampler Pump
WS-R3

DESCRIPTION	MODEL NUMBER	USED WITH
Radon Gas Chamber	PTG-9RN	Gas From Bubbles
Beta-Gamma Counter (Shielded)	PGS-3L-S	Flow Cell
Flow Meter	FLM-RA	Calibrated Metering Pump
Alpha-Beta Scintillation System	STG-ABS-42	Can Replace STAM-2R 'Alpha Only' System



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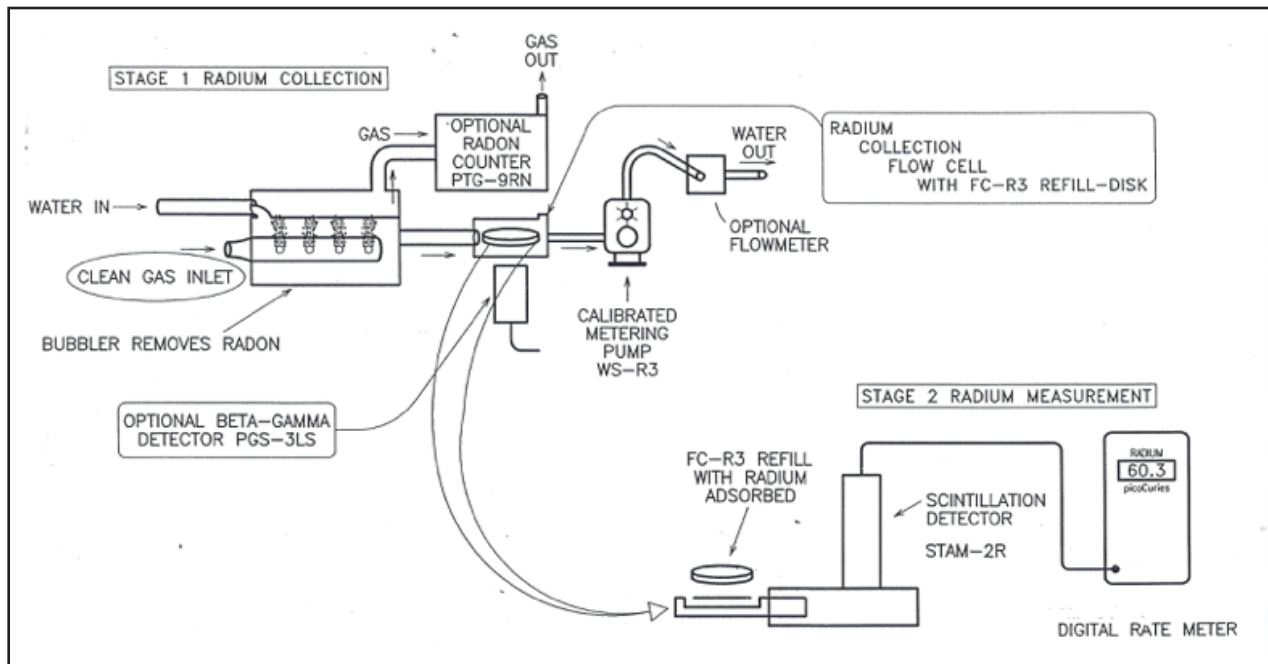
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RADIUM-TA - Flow Diagram



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