



PORTABLE
Sample Counter with STAM-2U

Uranium In Water Monitor

**Model Series:
Uranium-TA, Uranium-TA, and Uranium-MCA**

Electronics



PRS-7



MCA-TA



In-Line
Uranium Detector

Features

- System Gives on Site Measurements
- Detects Uranium: (232, 233, 235, 238)
- Sensitivity Better than 3 Pico Curie per Liter Total Uranium
- 10 Flow Cell Refills (FCR-3) Are Standard
- Gamma Rejection
- Portable Uranium Detector
- **Optional:** In-line Uranium Detector
- **Model Uranium-MCA** Identifies Specific Uranium Nuclides

Electronics:

- PRS-7, or MCA-TA

Electronics

The PRS-7 electronics works with both the Portable sample counter; STAM-2U and with the In-Line Uranium detector.

The MCA-TA multichannel analyzer electronics is exclusively for the In-Line Uranium detector.

Description

Multiple Components

- Water Pump (WS-R3)
- Uranium Collection Cell (RCC-3)
- Scintillation Detector (STAM-2U)
- Electronics: PRS-7, or MCA-TA



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Uranium In Water Monitor

Model Series: Uranium-TA, Uranium-TA, and Uranium-MCA

Three Step Process

1. The pump and Uranium 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 picoCi/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 picoCi/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:	Data Archive and Retrieval
- 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



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Model Series: Uranium-TA, Uranium-TA, and Uranium-MCA

Unit Model Setup and Comparison Charts

SERIES MODEL	URANIUM-TA	URANIUM-MCA
Types of Uranium Measured	TOTAL URANIUM U232, U233, U235, U238,	Alpha Spectrum Identifies Specific Uranium 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

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

Comparison charts and possible component pairings for the Uranium-TA Series Models listed on the first page.



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DESCRIPTION	MODEL NUMBER	USED WITH
Radon Gas Chamber	MODEL 200	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-2U 'Alpha Only' System

**Calibrated Water
Metering Pump WS-R3**



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