

LIMITED WARRANTY

ELEMENTS OF WARRANTY: This warranty covers all materials and craftsmanship in this product to be free from defect for a period of one year with only the limitations or exclusion set out below.

WARRANTY DURATION: This warranty shall terminate and be of no further effect one year after the original date of purchase of the product or at the time the product is: a) damaged or not maintained as is reasonable or necessary, b) modified, c) repaired by someone other than the warrantor for the defect or malfunction covered by this Warranty, d) used in a manner or purpose for which the instrument was not intended or contrary to the written instructions or e) is contaminated with radioactive material. This warranty does not apply to any product subject to corrosive elements, misuse, abuse, or neglect.

STATEMENT OF REMEDY: In the event the product does not conform to this warranty at any time while this warranty is effective, the Warrantor will replace the defective and return instrument to you prepaid, without charge for parts or labor.

NOTE: While the product will be remedied under this warranty without charge, this warranty does not cover or provide for reimbursement or payment of incidental or consequential damages arising from the use of the inability to use this product. The liability of the company arising out of the supplying of this instrument, or its use, whether on warranties or otherwise, shall not in any case exceed the cost of correcting defects in the instrument, and after the said one year period, all such liability shall terminate. Any implied warranty is limited to the duration of this written warranty.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: In the event that the product does not conform to this warranty, please contact your local distributor.

NOTE: Before using this instrument, the user must determine the suitability of the product for his or her intended use. The user assumes all risk and liability connected with such use.

TECHNICAL SERVICE

Should this instrument ever need servicing, please contact the address below or your local distributor.

DO NOT SEND CONTAMINATED INSTRUMENTS FOR REPAIR OR CALIBRATION UNDER ANY CIRCUMSTANCES.

S.E. INTERNATIONAL, INC.

P. O. Box 39

436 Farm Road

Summertown, TN 38483-0039

Tel: (931) 964-3561 Fax: (931) 964-3564

E-mail: seintl@seintl.com

RADIATION ALERT®

RAP47 RAP200 RAP640

Scintillation Probe Instruction Manual

RAP Scintillation Probes

Instruction Manual

The CsI(Tl) crystal used in the RAP scintillation probes has a higher atomic number, is physically more rugged, and less hygroscopic than a typical NaI detector. The improved gamma ray absorption of CsI(Tl) allows a thinner crystal to be used, which effectively reduces the background count rate.

Operation:

- 1) Before turning on the instrument, fasten one end of the cable to the MHV connector on end of probe and the other end to the instrument.
- 2) Perform any calibration and/or voltage adjustment that may be needed.
We recommend that you establish a background count away from the intended source to be measured.
- 3) To take a measurement or make a survey, hold the probe with the window facing but not touching the intended source.

Precautions:

- Handle probe carefully, avoid dropping. Although the crystal is more rugged than a typical NaI detector, it can be cracked.
- To avoid contamination, do not touch probe to the surface being tested.

SPECIFICATIONS

DETECTOR:

TYPE-

CsI(Tl) crystal (Cesium Iodide Thallium)

DIMENSIONS-

RAP47 - 1.0" (25.4 mm) dia. x .04" (1.0 mm) thick

RAP200 - 1.0" dia. x .25" (6.35 mm) thick

RAP640 - 1.0" dia. x 1.0" (25.4 mm) thick

RADIATION

DETECTED:

RAP47- gamma 8 keV to 1 MeV Typical absorption 100% at 47 keV, 80% at 100 keV.

RAP200 - gamma 8 keV to 1 MeV. Typical absorption 97% at 100 keV, 77% at 185 keV.

RAP640 - gamma, 8 keV to 3 MeV. Typical absorption 70% at 600 keV, 50% at 840 keV.

TEMPERATURE RANGE: -25° to +40° C

HUMIDITY RANGE: 0 - 90% Relative Humidity

OPERATING VOLTAGE: 600 - 1100 volts.

PROBE CONSTRUCTION: Anodized aluminum housing

Size -

Max. length 7 in., dia. 1.5 in.

Connector -

Standard MHV

Cable (optional) -

Straight RG59/u, length 3.5 feet

WEIGHT:

RAP47- Approx 6.3 oz. without cable

RAP200 - Approx 8.5 oz. without cable

RAP640 - Approx. 10.25 oz. without cable

Scintillation crystal window



MHV connector

Specifications subject to change

Made in USA