### **BASIC RADIATION AIR MONITOR**

# Survey Meter • Wipe Counter • also Chem or Bio Aerosols AIR-TBM SERIES

#### Model ~ AIR-TBM-B ~ AIR-TBM-AC

#### **FEATURES:**

- ALPHA, BETA-GAMMA, X-RAYS
- IDEAL FOR FIRST RESPONDERS
- REAL TIME
- PORTABLE

AIR-TBM-B – ALL BATTERY POWER
AIR-TBM-AC – ALL AC POWER

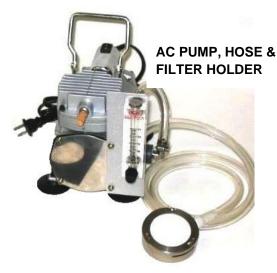
#### **ELECTRONICS - TBM-3SR-D**

- BATTERY POWER
- INTERNAL GM PANCAKE DETECTOR
- OPTIONAL: RECHARGEABLE BATTERIES WITH CHARGER
- > OPTIONAL: BACKLIGHT

#### **AC PUMP AP-5020E**

- > AC OPERATION
- > EASY CHANGE FILTER'
- > FLOW METER
- > OPTIONAL: RECHARGEABLE BATTERIES
  WITH CHARGER
- > OPTIONAL: NO FLOW METER





DIVISION OF

USNUCLEARCORP

OTCQB-UCLE

WH-15 FILTER & HOLDER & HOSE

#### **APPLICATION:**

- QUADRUPLE USE:
  - AIR MONITOR RADIATION
  - WIPE COUNTER
  - SURFACE MONITOR
  - PERSONAL AIR SAMPLER



TBM-3SR-D WITH BATTERY PUMP NO FLOW METER



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#### Model ~ AIR-TBM-B ~ AIR-TBM-AC

#### **DESCRIPTION:**

The AIR-TBM uses standard 57-70 mm filters in T/A's easy change, no leak filter, to trap any airborne radioactivity. The filter is under constant surveillance via pancake GM tube.

Air is drawn through the system by a continuous duty pump.

The unit is completely self-contained and portable. Room air is drawn in through the charcoal impregnated filter paper. Then through the pump and its 3 ft. exhaust hose that can be extended.

The AIR-TBM air sample filter holder from the AC pump can be connected to the TBM-3SR-D through a unique ``groove and track" bracket on bottom of TBM-3SR-D. This provides attachment of the air sampler filter holder for read-out with the TBM-3SR-D. The TBM-3SR-D is itself a compact surface monitor and survey meter.

#### SPECIFICATIONS:

**Measures:** Airborne radioactivity including aerosol, particulate and gases

excluding Noble Gases.

**Sensitivity:** Limit of sensitivity (99% confidence level) 1 nanoCi collected on filter paper.

TIME	SENSITIVITY	
1 Hour	3 x 10 <sup>-9</sup> µCi/cc	
24 Hours	1 x 10 <sup>-10</sup> μCi/cc	
5 Days	2 x 10 <sup>-11</sup> μCi/cc	

- $\geq$  2 x 10<sup>-11</sup> µCi/cc after 5 days with pump running or 1 x 10<sup>-10</sup> µCi/cc after 24 hours
- $> 3 \times 10^{-9} \mu \text{Ci/cc}$  after pump runs for 1 hour.
- This level is below 2/10th of the NRC Title 10 limit for 40 Hr. exposure to most hazardous Beta and/or Gamma emitter.

**Detector:** 2" diameter. Internal Thin window 1-3/4" x 1.5-2 mg/cm<sup>2</sup> pancake T-1190 GM detector

Energy Range: 50KeV to 2 MeV

Accuracy: ±20%

**Background:** Typically, 25 cpm

**Flow Rate:** Calibrated at factory. See chart below. Positive displacement pump.

Filters: Pack of 50 filters, charcoal impregnated

Optional: Can use membrane, paper or glass fiber filters.

**Case:** Electronics housed in instrument-case, carrying handle included.

**ELECTRONICS:** TBM-3SR-D Digital Ratemeter.

Digital Display: Large 6-digit LCD for Dose Rate

8-Digit LCD for Integrated Modes

Eliminates the need for a Range Switch, and Auto Range

Decades: 4 decades

Ranges: 0.01 to 100.00 mR/h (0.1µSv/h to 1.0 mSv/h)

**Ranges:** 1 x 10<sup>-10</sup> μCi/cc



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Accuracy: ±10%

Switch Positions: On/Off Toggle, Rate to Integrate Button, Program Button

Battery Test Switch: Toggle

**Battery:** (6) AA cells – Easy change, snap-in battery holder

Battery Life: Approximately 100 hours in normal use

**Detector:** 2" T-1190 "pancake GM tube

Meter Response Time: 2 seconds

**Operating Temp:**  $-35^{\circ}$  C to  $75^{\circ}$  C

**Humidity:** 95% Non-Condensing

#### **WEIGHT & DIMENSIONS:**

**TBM-3SR-D Electronics** 

**Dimensions:** 3" Wide x 5-3/8" Long x 3-1/2" High.

Excluding knobs and handle. (7.6 cm x 13.6 cm x 8.9 cm)

**Beta Shield:** Methacrylate 0.125", 3.1mm.

**Weight:** 1 lb. **(**0.45 kg)

**PUMP POWER:** AC. 115V, 50-60 Hz (230 V optional)

Pump	Model#	Flow Rate	Weight
Battery Operated No Flow Meter	MINI-AIR-15	4ft³/hour (2 lpm)	1 lb. <b>(</b> 0.45 kg)
AC Operated	AP-5020E	0.5ft <sup>3</sup> /minute (15 lpm)	6 lb. (2.7 kg)

#### **WEIGHT & DIMENSIONS:**

#### **AC PUMP**

Dimensions AC Pump: 5" W x 7" H x 10"L (12.7 cm x 17.8 cm x 25.4 cm (Fold Down Handle)

Weight AC Pump: 6 lbs. (2.7 kg)

#### **SYSTEM OPTIONS:**

Inlet hose to allow monitoring of closed spaces.

Rechargeable Batteries and Charger for TBM-3SR-D and/or pump

