Survey Meter • Wipe Counter • also Chem or Bio Aerosols

Model ~ AIR-TBM-SP

### **FEATURES:**

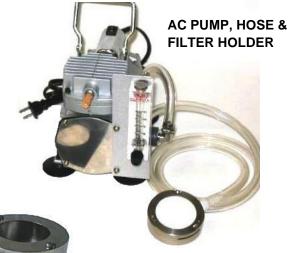
- ALPHA, BETA-GAMMA
- IDEAL FOR FIRST RESPONDERS
- REAL TIME
- PORTABLE
- AC OPERATION
- INTEGRATED EXPOSURE
- ELECTRONICS LAM-10D
- DETECTORS:
  - PGS-3 PROBE SEARCH TOOL
  - STB-3 WIPE OR FILTER COUNTER.
- DRAWS AIR FROM ROOM
- EASY CHANGE FILTER
- SLIDE-ON WIPE-HOLDER
- AC PUMP AP-5020E

#### **OPTIONAL:**

- BATTERY POWERED SYSTEM
- RELAY FOR OPERATING OTHER EQUIPMENT:
  - DOOR LOCKS, TURN ON FAN, ETC



LAM-10D



# WH-15 FILTER HOLDER



PGS-3 GAMMA

## **APPLICATION:**

#### QUADRUPLE USE:

- AIR MONITOR- RADIATION
- WIPE COUNTER
- SURFACE MONITOR
- PERSONAL AIR SAMPLER

#### PRINCIPLE OF OPERATION:

Air is pulled thru a charcoal impregnated filter paper by air pump. This filter is constantly observed by a 2" diameter thin window GM tube and ratemeter.

#### **DESCRIPTION:**

The AIR-TBM-SP uses standard 57-70 mm filters in T/A's easy change, no leak filter, to trap any airborne radioactivity. The filter is measured for Alpha/Beta by a pancake GM tube in the STB-3. 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. Wipe holder WH-15 accepts wipes from 1" diameter up to 2" diameter.





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STB-3 ALPHA/BETA

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### **SPECIFICATIONS:**

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

excluding the noble gases.

Sensitivity:

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	

- Limit of sensitivity (99% confidence level) 1 nanoCi collected on filter paper (as Beta over 0.1 MeV). This is the integrated content of entire amount of air drawn through the system.
- > This corresponds to 2 x 10<sup>-11</sup> μCi/cc after 5 days with pump running.
- $\rightarrow$  1 x 10<sup>-10</sup> µCi/cc after 24 hours or 3 x 10<sup>-9</sup> µCi/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 in absence of AC 227.

**Detector:** PGS-3: 1" Dia x 1" L scintillation crystal optically coupled to photomultiplier

tube. Gamma sensitivity is 100 times greater than GM tubes

**Detector:** STB-3: Alpha/Beta Counting System Termination is BNC

Sensitivity: Alphas/Betas 60KeV, Range: 30% to 100% of 2 pi

**Background:** Typically 25 cpm

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

**Filters:** Includes package of 50 filters, charcoal impregnated.

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

Electronics: LAM-10D Digital Ratemeter. Ranges: 0.01 to 100 mR/hr.

- 6 DIGIT RATE-8 DIGIT TOTAL DOSE
- ❖ WALL MOUNT OR PORTABLE
- ❖ AC OR BATTERY-RECHARABLE
- 5 DECADES
- ❖ RECORDER OUTPUT
- SETTABLE ALARM -BEEPER FLASHER
- DATA DOWNLOAD VIA RS-232
- OPTIONAL USB

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

Meter Response Time: 2 seconds

Pump Power: AC standard. 115V, 50-60 Hz (230 V optional); OPTIONAL: 6 AA batteries-









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**WEIGHT & DIMENSIONS:** 

**Dimensions PGS-3:** 9" L x 2" Dia

Weight PGS-3: 1 lb

Dimensions STB-3: 3 ½" W x 4 ½" L x 4" H Dimensions STB-3 Drawer: 2 1/16" Dia x 3/8" Deep

Weight STB-3: 7 ½ lbs with 1" Lead Shielding

**Dimensions LAM-10D:** 10" W x 7" H x 4" D

**Weight LAM-10-D:** 3 lbs including batteries and hardware, excluding probe.

**Dimensions AC Pump:** 5" W x 7" H x 10"L (Fold Down Handle)

Weight AC Pump: 6 lbs

### **PUMP SPECIFICATIONS:**

PUMP	Model #	Flow Rate	Weight
Battery Operated	MINI-AIR-15	4ft <sup>3</sup> /hour (2 lpm)	1 lb
AC Operated	AP-5020E	0.5ft <sup>3</sup> /minute	6 lb

#### **OPTIONS:**

- Flow Regulator Serial Output
- High Alarm Flow Meter
- Extended Life Pump
- Unit Fitted With Inlet Hose to Allow Monitoring Of Hoods





