

# RAPID RADON MONITOR

Model # FR-5-FS

## FEATURES:

### 1. Collector MODEL AS-2

Regulated Air Sampler complete with pump and flow meter and filter/cartridge holder.

Free air turbine pump capacity is 30 CFM, under constant surveillance by flowmeter.

10 cartridges are furnished as standard part of the AS-2.

It should be noted that cartridges may be reused if the count of the cartridge shows zero counts above background.

2. Scintillation/counter consists of MODEL PRS-5 or cheaper scaler electron package coupled with MODEL STG-4 shielded sample holder scintillator.

Note: Additional charcoal cartridges are available

**SENSITIVITY:** 1 pico Ci/liter with 3 minute air collection and 3 min count after 1 hour wait.



**DAILY VARIATIONS:** Radon concentration varies dramatically during each day. To measure daily average value, leave pump operating in place for 24 hours, then wait at least one hour and make measurement. Quiet pump will not disturb most sleepers in adjacent rooms.

**REUSE OF CARTRIDGE:** The cartridge will rid itself of Radon in approximately 2 weeks with no action, or can be rid completely of Radon in 1 hour by heating in oven for 1 hour at 250 degrees F.

- SYSTEM GIVES QUICK MEASUREMENT
- BETTER THAN 1 PICOCURIE PER LITER SENSITIVITY WITH ONE HOUR WAIT
- PORTABLE (AC OPERATED)
- REPLACEMENT CARTRIDGES WIDELY AVAILABLE

A two part system is included in this monitor with charcoal filter holder, second a scintillation counter/scaler. In practice, the pump and filter holder are taken to the area to be tested and air pulled through the filter for a period of at least 3 minutes. (Longer pull times increase the sensitivity but 3 minutes gives the sensitivity of 1 picoCi/liter.) Part two, the scintillator/scaler, receives the sample and counts the activity. A 3 minute count based on a 3 minute sample achieves 1 pico Ci per liter. A ten minute count based on a ten minute sample achieves a 0.1 pico Ci/liter sensitivity. A waiting period of approximately one hour after taking the sample and before counting is required to maximize the sensitivity. Longer or shorter waiting times (from ten minutes to seven days) will still allow detection and accurate measurement of Radon in air but at lesser sensitivity than above.

**TA** TECHNICAL ASSOCIATES

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### SPECIFICATIONS:

- **Electronics:** Programmable.
- **Pump:** High Flow Pump and Filter holder.
- **Flow Rate:** 227 liters/min (7.5 cfm)
- **Filters:** Includes package of glass fiber filter papers.
- **Air Inlet:** Direct from room or environment (or **Optional** inlet hose).
- **Breathing Zone:** **Optional** Tripod.
- **Filter Holder:** Unique TA Quick-Change Filter.  
**Optional** Holder for larger filters, such as 4" dia. or rectangular filters.
- **Filters:** 2" dia. glass filters also can use wide variety of 2" filters.
- **Flow Rate:** Typical 227 lpm (7.5 cfm).
- **Flow Measure:** Precision Air turbine and sensor give Real-time flow rate and total flow.
- **Analysis and Readout:** On-the-Fly Real-time analysis and readout give continuous flow rate, total flow rate and time.
- **Display:** 6 digit Bright LED Easy to Read. (AS-100AC)
- **Auto-Shut Off:** Triggered by preset sample time or preset total flow value.
- **Data Output:** RS-232 data port is standard.
- **Case:** Electronics housed in enameled aluminum housing; handle included.
- **Dimensions:** 17"W x 13"H x 13 1/2"D.
- **Power:** **AS-100:** 12-24 Volt DC.  
**AS-100-AC:** 115 Volt AC (**Optional** 230VAC).
- **Shipping Weight:** 84 lbs (Including Tripod).

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## SPECIFICATIONS (Continued):

### •Options:

- Inlet hose from hood, stack or other location.
- Tripod.
- Alarm - Settable 2000 Hz beeper and red flasher.
- Built-in web server allows authorized remote readout any where in the world.
- Serial Printer.

•**Optional Alpha-Beta Detector:** Model **FR-PIB** Air Monitor assures Safety against airborne radioactivity contamination by means of constant check with alarm and **Optional** record capability.

### Model:

#### •Portability:

#### •Detector:

#### •Size/Material:

#### •Window:

#### •Detector:

#### •Iodine:

#### •Detects Particulates:

#### •Detects Aerosol & Reactive Gases\*:

#### •Filter:

#### •Iodine Sensitivity: (30 min)

#### •Public Release: (1 x 10<sup>-10</sup> µCi/cc) Iodine

#### •Weights:

- Electronics:
- Detector+Filter:
- Pump:

#### •Shielding:

#### •\*Detects all airborne activity except Noble Gases, H-3,C-14,S-35,Fe-55.

#### •Electronics:

### FR-PIB

Portable

T-1190 GM Tube

2`` dia. Pancake

Mica 1.5 - 2.0 mg/cm<sup>2</sup>

Beta, Gamma

Removal of Alpha Shield allows detection of Alphas.

I-131

Yes

Yes

Charcoal Filter Paper 2`` dia.

5 x 10<sup>-11</sup> µCi/cc

1/2 x Public Release

4 lbs

2 lbs

20 lbs

None

PRS-5

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