

# PERSONAL AIR SAMPLER & RADIATION ALARM

Model ~ MINI-AIR Sampler for all Airborne Hazards **“Little Bro”**

Model ~ MINI-AIR-RAD Total Airborne Activity – **“Big Bro”**

## FEATURES: **“Little Bro” & “Big Bro”**

- REAL-TIME AIR FLOW METER
- COLLECTION OF ALPHA, BETA, GAMMA PARTICULATES
- FLOW RATE 3 LPM.
- BATTERY OPERATED
- INTEGRATED EXPOSURE
- CAN DRAW AIR FROM ROOM OR BREATHING ZONE
- QUICK CHANGE FILTER
- **OPTIONAL:** – RECHARGEABLE BATTERIES & BATTERY CHARGER
- **IP65**

## FEATURES: **“Little Bro”**

- COLLECTS DIVERSE AIR BORNE CONTAMINATION
- MULTIPLE SPECIALIZED FILTER MEDIA INCLUDING TRITIUM TRAP IS ACCEPTABLE

## FEATURES: **“Big Bro” PLUS TBM-3D**

- **DETECTS MOST NUCLIDES INCLUDING ORGANIC C-14**
- GM 1” THIN WINDOW DETECTOR
- ELECTRONICS – TBM-3D
- DETECTS  $6 \times 10^{-8} \mu\text{Ci/cc}$  in 30 minutes
- READS DIRECTLY IN cps or  $\mu\text{Ci}$
- **OPTIONAL:** SNIFFER HOSE – 3 Feet
- **OPTIONAL:** RS-232 COMPUTER AND/OR DATA ARCHIVE, RETREIVAL, DISPLAY INTERFACE
- **OPTIONAL:** WIRELESS ALARM

Mini Air  
**“Little Bro”**

**NO DETECTOR**

Air Pump >  
Flow Meter >  
& Filter  
Holder >  
Collection  
Only

Mini Air-RAD  
**“Big Bro”**

Air Pump,  
< Flow Meter,  
Filter Holder &  
Detector

< Detector



**TBM-3D & “Big Bro”  
Together**

**Mini Air-RAD Sampler System**

## APPLICATION:

The **MINI-AIR Series Air Monitors** assure safety against airborne radioactivity contamination by means of constant monitoring check. It provides integrated exposure information.

The **MINI-AIR Series** is sensitive and versatile. Although designed as an industrial workplace and hospital breathing air measurement system, it may also be used to monitor fume hoods and stack effluent.

**Mini-Air-RAD Option:** Alarm and record capability.



**TECHNICAL ASSOCIATES**

**OVERHOFF TECHNOLOGY**

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## DESCRIPTION: MINI-AIR-RAD System “Big Bro”

- The **MINI-AIR-RAD System** uses standard or charcoal filters in TA's unique quick change, no leak holders to trap any airborne radio-nuclides. The filter is under constant surveillance via a GM detector.
- Air is drawn by a high volume pump through the filter and exhausted to the room or through an optional hose. An Inlet and outlet hose may be attached to allow monitoring of hoods, glove boxes, stacks, etc.
- Power is controlled by a rocker switch.
- Time is controlled by a rocker switch wired into the pump circuit.
- The unit is completely self-contained and portable.
- Complete with 10 charcoal and 100 glass fiber filter disks.

## DESCRIPTION: MINI-AIR “Little Bro”

- ✓ The **MINI-AIR-** uses standard or charcoal filters in TA's unique quick change, no leak holders to trap any airborne contamination.
- ✓ Air is drawn by a high volume pump through the filter and exhausted to the room or through an optional hose. An Inlet hose may be attached to allow monitoring of hoods, glove boxes, stacks, etc.
- ✓ Power is controlled by a rocker switch.
- ✓ The unit is completely self-contained and portable.
- ✓ Complete with 10 charcoal and 100 glass fiber filter disks.

**NOTE:** The **Mini-Air “Little Bro”** is capable of collecting diverse airborne contaminants such as Smoke & Fumes from Diesel or Cigarettes, as well as Biological and Chemical Threats and Toxins including Radiation.

The Mini-Air is versatile and the user may use specialized filter media for specific airborne contaminants.

## OPTIONS:

- RECHARGEABLE BATTERIES & BATTERY CHARGER
- SNIFFER (SNORKEL) HOSE – 3 Feet
- RS-232 COMPUTER AND/OR DATA ARCHIVE, RETREIVAL, DISPLAY INTERFACE
- WIRELESS ALARM



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## SPECIFICATIONS: Mini-Air-RAD “Big Bro”

<b>Electronics:</b>	TBM-3D Programmable Digital Rate meter
<b>Air Flow Pump:</b>	Miniature 1-3 Liter/min Pump and Filter holder.
<b>Air Flow Pump Power:</b>	(6) AA Batteries - Rechargeable Batteries OK.
<b>Electronics Power:</b>	<b>TBM-3D</b> - (6) AA Batteries - Rechargeable Batteries OK.
<b>Range:</b>	1 x 10 <sup>-10</sup> to 1 x 10 <sup>-5</sup> $\mu$ Ci/cc (or Ci/m <sup>3</sup> ) (Depends on count time)
<b>Readout:</b>	6 Digit LCD - TBM-3D.
<b>Air Flow Meter:</b>	Displays flow rate 0.5 – 3.0 LPM.
<b>Filters:</b>	Includes package of 100 glass Fiber and 10 charcoal filter papers. (Can also use membrane filters.)
<b>Fitting:</b>	Sniffer Hose
<b>Case:</b>	Air Pump & Detector housed in polished blue aluminum.
<b>Electronics Case:</b>	TBM-3D housed in green aluminum housing; handle included.

## Weight & Dimensions:

<b>Pump &amp; Detector Assembly:</b>	1.75" Diameter x 8.5" Long.
<b>Electronics TBM-3D:</b>	3" W x 4" L x 5.5" H including handle.
<b>Electronics Weight:</b>	1 lb 10 oz.
<b>Electronics, Pump, Detector Assembly Weight:</b>	2 lbs 10 oz

<b>OPTIONAL:</b>	Sniffer Hose: 3 Feet
<b>OPTIONAL:</b>	Adjustable AIR Flow Rate: Variable from 0.5 to 3 LPM
<b>OPTIONAL:</b>	RS-232 Serial Port., Alarm, TAcquire Software

**NOTE: See Following Chart For Greater Detail.**

## SPECIFICATIONS: Mini-Air “Little Bro”

<b>Air Flow Pump:</b>	Miniature 1-3 Liter/min Pump and Filter holder.
<b>Power:</b>	(6) AA Batteries - Rechargeable Batteries OK.
<b>Air Flow Meter:</b>	Displays flow rate 3.0 LPM.
<b>Filters:</b>	Includes package of 100 glass Fiber and 10 charcoal filter papers. (Can also use membrane or specialty filters.)
<b>Sniffer Hose:</b>	3 Feet
<b>Case:</b>	Air Pump & Filter Holder housed in polished blue aluminum.

## Weight & Dimensions:

<b>Air Sampler Dimensions:</b>	1.75" Diameter x 9.5" Long
<b>Weight:</b>	1 lbs.

**NOTE: See Following Chart For Greater Detail.**



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MODEL:	MINI-AIR-RAD “Big Bro”	MINI-AIR “Little Bro”
Has Belt Clip:	YES	YES
Detector:	T-1210 GM Tube	External
Size/Material:	1" dia. Pancake	N/A
Window:	Mica 1.5 - 2.0 mg/cm <sup>2</sup>	N/A
Detector: Radiation	Alpha, Beta, Gamma	Optional External STB-3
Biological Hazards: Chemical Hazards:	User Specific Filter User Specific Filter	User Specific Filter User Specific Filter
Iodine:	Carbon Filter	Carbon Filter
Detects Particulates:	YES	YES
Detects Aerosol & Reactive Gases*:	YES	YES
Filter: Glass Fiber Charcoal Filter Paper- 1" dia	YES YES	YES YES
Iodine Sensitivity: (30 min)	$5 \times 10^{-8} \mu\text{Ci/cc}$	N/A
Public Release: ( $1 \times 10^{-10} \mu\text{Ci/cc}$ )	10 Hour exposure	N/A
<b>WEIGHT:</b>		
Mini-Air-RAD - Electronics:	2 lbs	Optional
Mini-Air-RAD - Air Pump & Detector & Filter Holder:	1 lbs	
Mini-Air - Air Pump & Filter Holder:		1 lbs
Air Pump:	Included	Included
RAD Shielding:	Optional	None
*Detects all airborne activity EXCEPT H-3, Fe-55 and Noble Gases	DETECTS YES	COLLECTS YES
Electronics:	TBM-3D	Optional



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## Easy Use Procedure: Mini-Air-RAD “Big Bro”

Flow-rate has been preset (user can change those if desired).

1. Turn on Rate meter or Scaler.
2. Put in clean filter.
3. Make Test Count (Pump Off).
4. Detach sampler and clip it to your belt.
5. Turn on Pump.
6. At end of job or work shift, Reattach Rate meter.
7. Digital display reads out directly in counts per second, or in uCi trapped in the filter (for a single isotope of interest with known conversion factor).
8. Filter must be clean at start of each new air sample.
9. User can change scale factor in order to readout in different units.

## Easy Use Procedure: Mini-Air “Little Bro”

Flow-rate has been preset (user can change those if desired).

1. Put in clean filter.
2. Clip it to your belt.
3. Turn on Pump.
4. Filter must be clean at start of each new air sample.



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