

ChromAir™ Colorimetric Badges

Direct Read Passive Monitoring System

Clear, easy-to-read color change. No lab analysis needed, no chemicals to mix. All exposure data and levels appear on the badge eliminating time spent waiting for samples from the lab.

Unique design minimizes the effects of humidity, air velocity and cross-sensitivity for increased exposure monitoring accuracy. A convenient exposure dose scale is printed on the back of the badge to the side of each cell for quick read of exposure results. Locate what you need to test for from the list below. They are packaged in a box of ten. Refrigerate until use. Reusable Carbon Monoxide, Formaldehyde, Glutaraldehyde, Hydrogen Sulfide and Mercury Color Comparators are available to increase the resolution of the badges. Match the colors on the badge to the comparator for exact readings. Badge clips required for all badges except acetone and methanol.

ChromAir™ Colorimetric Badges

Min. Detectable

Part Number	Chemical	ppm x hr.	Limit in 8 hrs.
KM-380020-10	Acetone	20-24000	2.5
KM-380003-10	Ammonia	4-300	0.5
KM-380008-10	Carbon Monoxide	10-525	1.25
KM-384006	CO Color Comparator	-	-
KM-380004-10	Chlorine	0.4-13	0.05
KM-380007-10	Formaldehyde	0.3-12	0.04
KM-384001	Formaldehyde Color Comparator	-	-
KM-380017-10	Glutaraldehyde	STEL (15 min)	-
KM-384000	Glutaraldehyde Color Comparator	-	-
KM-380012-10	Hydrazine	0.01-0.8	-
KM-380009-10	Hydrogen Sulfide	1-240	0.25
KM-384002	Hydrogen Sulfide Color Comparator	-	-
KM-380018-10	Mercury	0.15-1.4 mg/m ³	0.02 mg/m ³
KM-384003	Mercury Color Comparator	-	-
KM-380015-10	Methanol	27-3200	3.38
KM-380006-10	Nitrogen Dioxide	0.5-13.0	0.06
KM-384007	Nitrogen Dioxide Color Comparator	-	-
KM-380010-10	Ozone	0.08-1.6	.01 ppm

Save Time & Money with Direct Read Passive Monitoring Badges.



Pocket Ref, 2nd Edition

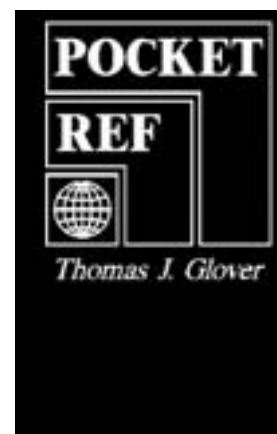
By Thomas J. Glover

Greatest Reference of all time!

Air, Automotive, Carpentry & Construction, Chemistry & Physics, Computers, Constants-Physical, Electrical, Electronics, General Information, General Science, Geology, Glues, Solvents & Paints, Hardware, Math, Mining & Milling Weights of Materials, Plumbing & Pipe, Rope, Cable & Chain, Steel & Metals, Surveying & Mapping and Water and much, much more .

Pocket Ref, 2nd Edition

Part Number	Description
SE-1-885071-00-0	Pocket Ref 2nd Edition by Thomas J. Glover



SafeAir™

Direct Read Passive Monitoring System

Badges are economical enough for daily exposure screening, with no lab analysis required. Can be used for as little as 15 minutes or as long as several hours.

Specifications:

Immediate visual indication lets you know when a specific chemical is present at the threshold level listed below. Unmistakable results-chemical exposure causes an exclamation point to change color. Package of 50. Refrigerate until use. Badges simply clip on your pocket or lapel. Clips are sold separately in packs of 10.

SafeAir™

Part Number	Chemical	Threshold ppm x hr.	Level Min. Detectable Limit in 8hrs.
KM-382010	Ammonia	4.0	0.50
KM-382017	Carbon Dioxide	8000	1000
KM-382012	Carbon Monoxide	7.0	1.0
KM-382009	Chlorine	0.2	0.025
KM-382011	Formaldehyde	0.4	.05
KM-382002	Hydrazine	8.0 ppb	1.0 ppb
KM-382015	Hydrogen Sulfide	2.0	0.25
KM-382005	Mercury	0.1/0.2	0.013/0.03 mg/m3
KM-382013	Nitrogen Dioxide	1.0	0.125
KM-382004	Ozone	0.05	0.006
KM-382014	Sulfur Dioxide	0.2	0.025
KM-382001	TDI	0.02	0.0025
KM-401966-10	Badge Clips (Pack of 10)		



Air Pollution Monitoring by Passive Diffusion Tubes

The Passive Diffusion Tubes are equally ideal for long term measurements i.e. weekly or monthly averages of air pollution and for short term workplace or personal monitoring where time weighted average measurements are prime importance. Historically, measurements of air quality have been limited by the expense and technical difficulties of operating suitable samplers. Simple passive diffusion tube technology (in which the pollutant to be monitored is collected over an extended period by means of the diffusion of the gas molecules into a chemical absorbent and subsequently analyzed), offers an elegant solution to this problem.

Passive Diffusion Tubes Available: Nitrogen Dioxide, Sulfur Dioxide, Ozone, Ammonia, Hydrogen Sulfide, VOC

Passive Diffusion Tubes



Part Number	Description	Tubes
<i>Ready to use tubes:</i>		
GR-DIF100RTU-R	Nitrogen Dioxide	Acrylic
GR-DIF200RTU-R	Hydrogen Sulfide	Acrylic
GR-DIF400RTU-R	Ammonia	FEP
GR-DIF600RTU-R	Sulfur Dioxide	FEP
<i>Tubes with Analysis:</i>		
GR-DIF100RTU-RA	Nitrogen Dioxide	Acrylic
GR-DIF200RTU-RA	Hydrogen Sulphide	Acrylic
GR-DIF600RTU-RA	Sulphur Dioxide	FEP
GR-DIF300RTU-RA	Ozone	FEP
GR-DIF400RTU-RA	Ammonia	FEP
GR-DIFCHR-B	Benzene	Steel
GR-DIFCHR-BTX	BTEX	Steel
GR-DIF800-3BS	VOC C2 to C15	Steel
GR-DIF800-CPK	VOC C8 to C20	Steel
GR-DIF800-SPH	VOC C3 to C8	Steel

Gas Detection Tubes

Rae gas detection tubes are used to detect leaks and measure toxic in work environments at defined intervals. Use the tubes with either the Piston Pump or the Sample Rae. Ten per box.

Gas Detection Tubes

Part Number	Description
ACETONE	
RA-10-111-40	Standard Range: 0.1-2%, Extended Range: 0.05-4%
AMMONIA	
RA-10-100-05	Standard Range: 1-30ppmv, Extended Range: 0.5-60ppmv
RA-10-100-10	Standard Range: 5-100ppmv, Extended Range: 2.5-200ppmv
RA-10-100-15	Standard Range: 25-500ppmv, Extended Range: 12-1000ppmv
RA-10-100-40	Standard Range: 1-15%, Extended Range: 0.5-30%
BENZENE	
RA-10-101-10	Standard Range: 5.0-40ppm selective, Extended Range: 2.5-200ppmv
RA-10-101-20	Standard Range: 5-100ppmv, Extended Range: 2.5-200ppmv
CARBON MONOXIDE	
RA-10-102-18	Standard Range: 5-100ppmv, Extended Range: 2.5-200ppmv
RA-10-102-20	Standard Range: 5-100ppm selective, Extended Range: 2.5-200ppmv
RA-10-102-30	Standard Range: 20-500ppm, Extended Range: 10-1,000ppm
RA-10-102-45	Standard Range: 0.2-4%, Extended Range: 0.05-4%
CHLORINE	
RA-10-106-10	Standard Range: 0.5-8ppmv, Extended Range: 0.25-16ppmv
RA-10-106-20	Standard Range: 5-100ppmv, Extended Range: 2.5-200ppmv
HYDROCARBONS	
RA-10-110-30	Standard Range: 50-1,000ppmv, Extended Range: 25-2,000ppmv
HYDROGEN FLUORIDE	
RA-10-105-10	Standard Range: 0.5-20ppmv, Extended Range: 0.25-40ppmv
HYDROGEN SULFIDE	
RA-10-103-05	Standard Range: 0.2-3ppmv w/desiccant, Extended Range: 0.1-6ppmv
RA-10-103-04	Standard Range: 0.2-3ppmv, Extended Range: 0.1-6ppmv
RA-10-103-10	Standard Range: 2.5-60ppmv, Extended Range: 1.25-120ppmv
RA-10-103-15	Standard Range: 10-120ppmv, Extended Range: 5-240ppmv
RA-10-103-18	Standard Range: 25-250ppmv, Extended Range: 12.5-500ppmv
RA-10-103-20	Standard Range: 50-800ppmv, Extended Range: 25-1,600ppmv
RA-10-103-30	Standard Range: 100-2,000ppmv, Extended Range: 50-4,000ppmv
RA-10-103-40	Standard Range: 0.1-2%, Extended Range: 0.05-4%
RA-10-103-50	Standard Range: 2-40%, Extended Range: 0.5-40%

From Acetone to Xylene, You'll Find your RAE Tubes Here!



Gas Detection Tubes

Part Number	Description
MEK	
RA-10-113-20	Standard Range: 0.02-0.6%, Extended Range: 0.01-1.8%
MERCAPTANS	
RA-10-129-20	Standard Range: 5-120ppmv, Extended Range: 2.5-240ppmv
NITROGEN DIOXIDE	
RA-10-117-10	Standard Range: 0.5-30ppmv, Extended Range: N/A
NITROGEN OXIDES	
RA-10-109-20	Standard Range: 1-50ppmv, Extended Range: 0.5-100ppmv
PHOSPHINE	
RA-10-116-10	Standard Range: 5-50ppmv, Extended Range: 2.5-100ppmv
RA-10-116-20	Standard Range: 25-500ppmv, Extended Range: 12.5-1,000ppmv
RA-10-116	Standard Range: 50-1,000ppmv, Extended Range: 25-2,000ppmv
SULFUR DIOXIDE	
RA-10-107-15	Standard Range: 2-30ppmv, Extended Range: 1-60ppmv
RA-10-107-20	Standard Range: 5-100ppmv, Extended Range: 2.5-200ppmv
RA-10-107-25	Standard Range: 100-1,800ppmv, Extended Range: 50-3,600ppmv
RA-10-107-30	Standard Range: 200-4,000ppmv, Extended Range: 50-4,000ppmv
RA-10-107-40	Standard Range: 0.2-5%, Extended Range: 0.1-10%
TOLUENE	
RA-10-114-20	Standard Range: 10-300ppmv, Extended Range: 5-600ppmv
VINYL CHLORIDE	
RA-10-128-10	Standard Range: 1-20ppmv, Extended Range: 0.5-40ppmv
WATER VAPOR	
RA-10-120-10	Standard Range: 20-10 lbs/MMCF, Extended Range: 1-20 lbs/MMCF
RA-10-120-20	Standard Range: 6-40 lbs/MMCF, Extended Range: 3-80 lbs/MMCF
XYLENE	
RA-10-112-20	Standard Range: 10-200ppmv, Extended Range: 5-400 ppmv
<ul style="list-style-type: none"> • These boxes contain 5 colorimetric tubes and 5 pre-tubes, with 1 connector, for a total of 5 measurements. 	
GAS GENERATION	
RA-10-123-01	Smoke Tubes (Stannic Chloride Irritant, 6 tubes/box)
RA-010-0004-000	Smoke Kit (includes an aspirator bulb, tube tip breaker and a box of six smoke tubes, soft leather case)

RAE Piston Hand Pump

Precision hand operated piston pump for use with gas detection tubes, with lifetime warranty.

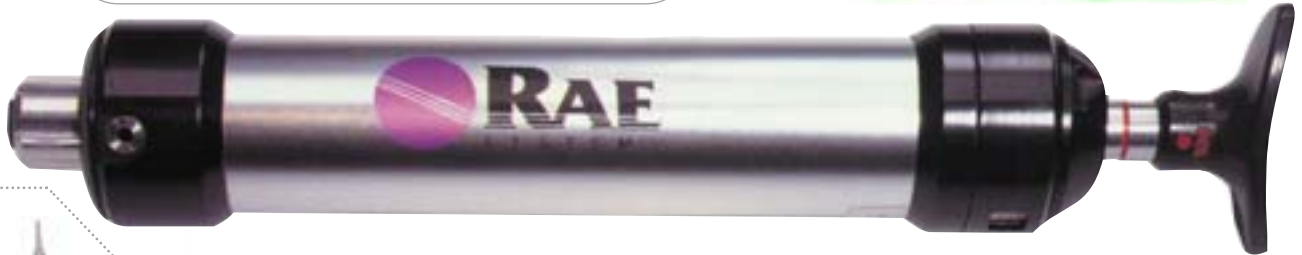
Hand Pump Kit includes:

- 50/100 ml Piston Hand Pump
- Spare Inlet Filters (2)
- Spare Rubber Inlet
- Spare Plunger Gasket
- Carrying Case

RAE Piston Hand Pump

Part Number	Description
RA-010-0901-000	Hand Pump Only
RA-010-0001-000	Hand Pump Kit

**Economical Gas Detection
(See Gas Detection Tubes
on Page 23)**



SampleRAE

Model ASP-2000

The SampleRAE is the world's easiest, most accurate method of detection tube sampling. Human error has been eliminated from sample timing and flow monitoring with the microprocessor controlled and user programmable flow rate. A strong internal pump offers truly one-handed operation. The SampleRAE calibrates easily and runs on either Ni-Cad or alkaline batteries. The sample volume displays constantly on a large, backlit Liquid Crystal Display.

SampleRAE Kit includes:

- SampleRAE Automatic Pump-Model ASP-2000
- Gas outlet port adapter with tubing
- Calibration tube
- Screw driver
- Alkaline battery adapter
- Operations manual
- Carrying case
- 4 AA alkaline batteries (if specified)
- Rechargeable Ni-Cd battery (if specified)
- 120 V AC/DC Wall Adapter (if specified)

SampleRAE

Part Number	Description
RA-010-0011-000	Alkaline
RA-010-0011-100	Rechargeable, No wall adapter
RA-010-0011-110	Rechargeable, 120 V wall adapter
RA-010-0011-120	Rechargeable, 230 V wall adapter

Combination Air Quality Testing Outfit

A rugged, field carrying case houses all the necessary components to measure six key pollutants in air. Each individual test module contains all the necessary labware and reagents for 25 tests. The complete outfit also includes the Portable Air Sampling Pump in its own carrying case, three types of impingers, and a detailed instruction manual.

Factors: Ammonia, Carbon Monoxide, Chlorine, Hydrogen Sulfide, Nitrogen Dioxide, Sulfur Dioxide

Combination Air Quality Testing Outfit

Part Number	Description
LA-5960-P	Combination Air Quality Testing Outfit
LA-5960	Outfit without Air Sampling Pump
LA-R-5960	Reagent Refill



A Practical Approach to Air Pollution Detection

Monoxor® Indicator

A quick, easy to use instrument that measures carbon monoxide by simply drawing an air sample through a chemical reagent in a glass indicator tube. If carbon monoxide is present, a stain appears in the indicator tube; the length of the stain is measured against a built-in-scale to determine the CO percentage or parts per million (ppm).

Monoxor® Detector

The Monoxor® Detector is also fast and simple to operate. An air sample is drawn through a detector tube containing an indicating gel; if a stain forms after one pump stroke, the CO concentration is 300ppm or higher. If it appears after two strokes, the concentration is 100 to 300 ppm. If no stain appears, the concentration is less than 100 ppm.

Monoxor®

Part Number	Description
BA-19-7021	Monoxor® Detector Including Pump, One Carton of 12 Tubes and a carrying case
BA-19-5005	Monoxor® Detector Kit as Above, Plus Flue Gas Sampling Assembly (11-7056)
BA-19-0241	Monoxor® Indicator 0-0.5%
BA-19-0244	Monoxor® Gas Test Kit 0-0.5%
BA-19-0243	Sample Pump Includes Scale and Orifice A
BA-19-0015	Scale
BA-19-5015	Tubes 12 per/box



EPAM-5000 Real-Time Environmental Monitor

The HAZ-DUST EPAM-5000 Environmental Particulate Air Monitor is a portable microprocessor based instrument designed for environmental and indoor air quality investigations. Highly sensitive, this monitor offers immediate real-time determinations and data recordings of airborne particle concentration in milligrams per cubic meter (mg/m₃). Interchangeable size-selective sampling heads allow PM10, PM2.5 or PM1.0 monitoring. The EPAM 5000's unique aerodynamic particle sizing and 37mm in-line filter cassette allow concurrent gravimetric sampling. Sample for up to 24 hours on one battery. Sampling data can be uploaded and store in a PC for further analysis management-ready reports can also be generated.



EPAM-5000

Part Number	Description
SK-770-203	EPAM-5000 10 µm Monitor Kit, includes; monitor with 10 µm sampling head battery charger, filter cassette blank, Hazcomm software, computer cable, shoulder strap and manual
SK-770-202	EPAM-5000 2.5 µm Monitor Kit, includes; monitor with 2.5 µm sampling head battery charger, filter cassette blank, Hazcomm 3software, computer cable, shoulder strap and manual
SK-770-201	EPAM-5000 1.0 µm Monitor Kit, includes; monitor with 1.0 µm sampling head battery charger, filter cassette blank, Hazcomm software, computer cable, shoulder strap and manual
SK-770-206	EPAM-5000 Sampling Head 10 µm(interchangeable)
SK-770-205	EPAM-5000 Sampling Head 2.5 µm(interchangeable)
SK-770-204	EPAM-5000 Sampling Head 1.0 µm(interchangeable)

HAZ-DUST III Real-time Personal Dust Monitor

The HAZ-DUST III real-time personal dust monitor contains an internal pulsation dampened sampling pump, datalogger, and communications software. Using near-forward light scattering technology, the HAZ-DUST III measures airborne dust particle concentration and displays in real-time. Unique signal processing internally compensates for noise and drift, while allowing high resolution, low detection limits, and excellent baseline stability.

- Displays TWA, STEL min, and max levels
- High sensitivity - 0.01 to 200mg/m₃
- Pulsation-dampened pump provides up to 3 l/min flow rate
- True breathing zone measurements of inhalable, thoracic, and respirable dust
- Compact and lightweight (3.5 x 9 x 2.5 inches), 3lbs
- Internal PCB assembly designed for easy field service and interchangeability

HAZ-DUST III

Part Number	Description
SK-770-1005	(110V) HAZ-DUST III Personal Monitor includes monitor and datalogger, detachable sensor with thoracic head, changer, and communication software with cable
SK-770-1006	(220V) HAZ-DUST III Personal Monitor includes the same as above
SK-770-110	Calibration Standard
SK-770-116	Replacement Battery Pack
SK-770-109	HazComm Computer Software (requires Windows 3.1 or higher) For use with HAZ-DUST, HAZ-DUST III, or EPAM-5000
SK-770-115	Add-on for Windows NT and NT Server 4.0



Shirt Pocket Size Ozone Sensor

The model A-21ZX portable ozone sensor provides a reliable and inexpensive way of checking generators, valves, piping and general environments for ozone leaks and for estimating ozone levels. It can be used as a permanent monitor indoors when concentrations average below 0.1ppm. It may be used outdoors for ozone studies in moderate temperature conditions.

The A-21ZX features:

- Small size and high sensitivity due to HMOS (heated metal oxide semiconductor) sensor.
- Sensitivity: as low as 0.02ppm. Range: 0-10ppm
- Size: 50 x 100 x 25mm (2" x 4" x 1")
- Weight: 170 grams (6 ounces)
- "Instant On" feature.
- Ease of calibration and service
- Basic power requirement is 12 volts DC unregulated. Works from AC adapters available worldwide
- Digital readout in 0.01ppm increments
- Rechargeable batteries last more than 8 hours
- Very simple operation



Shirt Pocket Size Ozone Sensor

Part Number	Description
ES-A-21ZX	Shirt Pocket Size Ozone Sensor

Dissolved Ozone Meter

For checking residual dissolved ozone levels in bottled water, swimming pools, spas, water treatment systems, aquariums, food washing and canning, wineries, agriculture, cooling towers, research projects, and much more. Uses 50-180ml samples. The sensor does not contact the water there are no interferences from chlorine or salinity.

Features:

- No fouling of the sensor. No special probe installation. No sensor-water contact.
- Easily understood by non-technical personnel, no confusing chemistries or restrictions.
- Easy to check calibration by standard kits and by ozone sources.
- Can use AC power via low voltage adapter or can use internal rechargeable batteries.
- Lowest cost. No consumables

Specifications:

Range: 0.02 – 14ppm (mg/l), 0.1 – 0.7ppm (mg/l).

Accuracy: Within 20% at higher end of ranges when operated near room temperature.

Response Time: About 10 seconds to 90% reading. Full reading at 1 minute. Reading time is independent of the half-life of the ozone in the water sample

Measurement Principle: HMOS (heated metal oxide semiconductor) sensor in headspace

Interferences: None from salt or typical levels of chlorine. Only likely interferences are from strong VOCs.

Size: 85 x 35 x 60mm (3 1/4" x 1 3/8" x 2 3/8") Weight: 154 grams (6oz)

Power Requirements: 12-24 volts DC 300mA. AC adapters available worldwide

Batteries: Self-contained NiMH, about 8-hour capacity. Recharged by AC adapter overnight.



Low Cost!

Dissolved Ozone Meter

Part Number	Description
EC-EZ-10W	The Low Cost Dissolved Ozone Meter

Simple & Inexpensive



VOC Gas Sensors

Part Number	Description
ES-C-12	Model C-12 Visual Display Only
ES-C-21	Model C-21 Includes Audio Alarm, Battery Operation and Provision for External Alarm and Data Logger

VOC Gas Sensors

Model C-12

Visual Display Only-Lowest Cost and Provision for External Alarm and

For paint shops, printers, dry cleaners, woodworkers, vehicle repair facilities, chemical production areas and wherever indoor air quality monitoring is required.

Features:

- High sensitive to solvent vapors and other VOCs. Bright green-yellow red display clearly shows hazard level of gas or vapor. Model C-21 also features audio alarm and data logging connection.
- Detects down to OSHA, EPA, and other regulatory-mandated levels... typically at low ppm concentrations
- Has built-in rechargeable battery for portable use in tracking leaks.
- Rugged construction with many safety features.

Specifications:

Range: Full scale: 50 -100 ppm for most solvent based VOC's

Bar graph Display: Green = normal. Yellow = caution. Red = danger

Response time: Within a few seconds of the VOC gas reaching the sensor

Measurement Principle: HMOS (heated metal oxide semiconductor) sensor.

Size: 85 x 35 x 60mm (3 1/4" x 1 3/8" x 2 3/8")

Weight: 140 grams (5oz)

Power Requirements: 12 volts DC at 300mA. AC adapters available worldwide

Battery: Self-contained NiCad or NiMH. Approximately 2 hour capacity. Recharged by AC adapter overnight.

Model C-21

Includes Audio Alarm, Battery Operation and Datalogger

QRAE

Simple and Reliable 4 Gas Monitor for Confined Space Entry

QRAE is a rugged, easy to use, economical, hand-held, 4 gas monitor. It has a built-in robust internal pump with optional 20,000 point datalogging capacity.

Features:

Reliable plug-in smart sensors, Combustible, Oxygen, Hydrogen Sulfide and Carbon Monoxide. Strong protective rubber boot, water dust resistant, rugged ABS plastic / metal case, protects from interference by portable radios. One button calibration with auto zero capability.

Monitor and Confined Space Kit Includes: QRAE monitor, calibration adapter, 34 liter multi-gas cylinder and regulator, rubber boot, 15' Tygon tubing with water trap filter, 10 water trap filters,

Specifications:

Oxygen:	0-30%	0.1% resolution
Combustible Gas:	0-100% LEL	1% resolution
Carbon Monoxide:	0-500 ppm	1 ppm
Hydrogen Sulfide:	0-100 ppm	1 ppm
Dimensions:	4.65"L x 3"W x 1.9"H 16oz .	

QRAE

Part Number	Description
RA-027-0000-010	QRAE Monitor Only with Datalogging, 120V
RA-027-0000-011	QRAE Monitor with Datalogging and Confined Space Kit, 120V



450 Series Single Gas Portable Monitors

The 450 Series Single-Gas Pocket Detectors are ideal for personal protection for a single gas: Oxygen, Carbon Monoxide, Hydrogen Sulfide, Ammonia, Sulfur Dioxide or Chlorine. Each features a high contrast numerical level display plus visual and audible warnings. The units can be easily attached to a pocket, belt or helmet via the clip included.

Monitor Includes: 450 Single Gas, Cal Hood, Tubing, Manual and Small Case.

Specifications:

Detection: Electrochemical

Dimensions: 1.7" W x 1.1" H x 3.65" L, 5.5 oz.

Power Source: Lithium Camera Battery

Compliance: Intrinsically Safe for use in Class 1, Division 1, Groups A, B, C, and D areas, CSA approved.



**Reliable, Compact
& Cost Effective**

450 Series Single Gas Portable Monitors

Part Number	Description	Range
IA-954-450-100	450 O ₂ , Oxygen	0-25% Vol.
IA-954-450-101	450 CO, Carbon Monoxide	0-900 ppm
IA-954-450-102	450 H ₂ S, Hydrogen Sulfide	0-900 ppm
IA-954-450-103	450 Cl ₂ , Chlorine	0-90 ppm
IA-954-450-104-A	450 NH ₃ , Ammonia	0-250 ppm
IA-954-450-105	450 SO ₂ , Sulfur Dioxide	0-100 ppm

"Wear It Like A Watch"



**Comfortable,
Lightweight
& Economical.**

Gaswatch 2

The Gaswatch features hands free gas monitoring with a watch type design. It has fast, accurate response with a digital LCD display. The Gaswatch detects any 1 or 2 combinations of H₂S, CO and O₂.

Specifications:

Sampling Method: Diffusion type sampling method, electrochemical cell detection (CO, H₂S) and Galvanic cell (O₂).

Measuring Ranges: Carbon monoxide 0-500 ppm, oxygen 0-40.0% O₂, hydrogen sulfide 0-100 ppm.

Functions: TWA, STEL & PEAK hold functions.

Gaswatch 2

Part Number	Description
RK-72-0007	Gaswatch 2 measuring O ₂
RK-81-GW2X-LV	Calibration Kit For Gaswatch 2 measuring O ₂
RK-73-0040	Gaswatch 2 measuring CO
RK-81-GW2C-LV	Calibration Kit for Gaswatch 2 measuring CO
RK-73-0041	Gaswatch 2 measuring H ₂ S
RK-81-GW2H-LV	Calibration Kit for Gaswatch measuring H ₂ S

• All calibration kits includes a 34 liter cylinder, regulator, test cup, case and tubing



ToxiRAE Plus

Part Number	Description	Range
RA-007-0006-001	ToxiRAE, O ₂ , Oxygen	0 to 30%
RA-007-0511-001	ToxiRAE, H ₂ S, Hydrogen Sulfide	0 – 100 ppm
RA-007-0512-001	ToxiRAE, CO, Carbon Monoxide	0 – 500 ppm
RA-007-0513-001	ToxiRAE, SO ₂ , Sulfur Dioxide	0 – 20 ppm
RA-007-0514-001	ToxiRAE, NO, Nitric Oxide	0 – 250 ppm
RA-007-0515-001	ToxiRAE, NO ₂ , Nitrogen Dioxide	0 – 20 ppm
RA-007-0516-001	ToxiRAE, Cl ₂ , Chlorine	0 – 10 ppm
RA-007-0517-001	ToxiRAE, HCN, Hydrogen Cyanide	0 – 100 ppm
RA-007-0518-001	ToxiRAE, NH ₃ , Ammonia	0 – 50 ppm
RA-007-0519-001	ToxiRAE, PH ₃ , Phosphine	0 – 5 ppm
RA-007-0520-001	ToxiRAE, ClO ₂ , Chlorine Dioxide	0 – 1 ppm
RA-007-3042-000	Rubber Boot	

ToxiRAE Plus

Single Gas Monitors

The ToxiRAE Plus is a durable, compact, single gas monitor. operating on two AAA alkaline batteries, these diffusion instruments operate over 1000 hours. The ToxiRAE monitors include alkaline batteries, calibration adapter, tubing and operation and maintenance manual. The ToxiRAE for toxic sensors has limited sensor interchangeability, while the ToxiRAE O₂ is a dedicated oxygen monitor.

Specifications:

Alarm: 90dB buzzer and flashing red LED to indicated exceeded limits

Functions: STEL and TWA for toxic gases, programmable alarm set points, low battery indication

Dimensions: 6.0" L x 1.75"W x 1.0"H

Compliance: UL and cUL classified intrinsically safe in Class I, Groups A, B,C, and D and Eex ia IIC T4

3010 N₂O Monitor

The 3010 N₂O Monitor is an affordable and lightweight personal Nitrous Oxide gas monitor that continuously measures and rapidly detects occupational exposure to N₂O. Weighing only 8 ounces, the N₂O monitor is a versatile instrument that performs risk assessments, area monitoring, personal monitoring and leak detection in environments where there is a risk of exposure to anesthetic agents. It measures in 5 ppm increments and features both ppm and TWA measurement capabilities, which can be accessed with just a touch of a button. A built-in datalogger provides traceable readings for record keeping purposes. The N₂O monitor also includes an internal sampling pump. It is not necessary to span or calibrate the monitor – zeroing in fresh ambient air or with nitrogen is all that is necessary.

Specifications:

Dimensions: 5.5" L x 2.6"W x 0.8"H, 7oz.

Datalogging: Continuous datalogging – up to 800 readings

Power Source: Continuous operation on a full charge (6 hours with pump)

3010 N₂O Monitor

Part Number	Description
BA-19-7109	3010 N ₂ O monitor
BA-19-3301	IrDA Interface Interface/Software
BA-19-8027	Calibration Kit (with regulator & tubing)
BA-23-4003	Calibration Gas (100% N ₂ , 17L)



2800 CO₂ Monitor

The 2800 CO₂ Monitor is a compact and lightweight carbon dioxide detecting device that immediately responds to excessive concentrations of CO₂. The CO₂ monitor is based on the principle of infrared absorption and has two pre-set alarm levels at 5,000 ppm and 10,000 ppm. When the monitor is switched on, it will automatically begin storing information (time, date and CO₂) at 30 second intervals (optional software allows user selection of logging frequency.)

Specifications:

Power Source: Lithium Camera Battery

Compliance: Intrinsically Safe for use in Class 1, Division 1, Groups A, B, C, and D areas, CSA approved.

Dimensions: 5.5"L x 2.6"W x 0.8"H, 7oz.

Operating Range: 0 – 50,000 ppm CO₂, 100 ppm resolution

Power Source: Nickel-metal hydride battery - 8 hours of continuous use



2800 CO₂ Monitor

Part Number	Description
BA-19-7101	2800 CO ₂ Monitor w/ datalogging and charger
BA-19-3301	IrDA Interface/Software
BA-19-8027	Calibration Kit
BA-24-1125	Calibration Gas (340 ppm CO ₂)
BA-24-1130	Calibration Gas (2500 ppm CO ₂)



2810, 2815, 2820 CO₂ Analyzers

The 2810, 2815, and 2820 CO₂ Analyzers are compact and lightweight, and provide fast and accurate CO₂ measurements. All instruments use a maintenance free dual wavelength pressure and temperature compensated sensor. The 2815 & 2820 have a powerful internal pump for extracting samples and they come with a flexible rubber probe and water trap. All instruments feature datalogging for record keeping. Stores up to 850 CO₂ readings.

Specifications:

Dimensions: 5.5" L x 2.6"W x 0.8"H, 7oz.

Operating Range: 2810 range: 0 - 10,000 ppm, 10 ppm increments
 2815 range: 0 – 10,000 ppm, 10 ppm increments
 2820 range: 0 – 60% (0.1% increments)

Power Source: Nickel-metal hydride battery - 8 hours of continuous use.

2810, 2815, 2820 CO₂ Analyzers

Part Number	Description
BA-19-8023	2810 CO ₂ Analyzer, w/ datalogging and charger
BA-19-8025	2820 CO ₂ Analyzer, w/ datalogging, charger, pump, sample tube & water trap
BA-19-8028	2815 CO ₂ Analyzer, w/ datalogging, charger, pump, sample tube & water trap

Single Gas Analyzers

Family of Products

Quickly measure the levels of oxides of nitrogen (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), or oxygen (O₂), accurately, efficiently and economically. Just turn on the instrument, zero it, insert the probe into the stack or air being sampled. The analyzer will continuously measure and display readings of a specific gas.

With the addition of the Breath Analysis Module (BAM) to the Monoxor II, it becomes a powerful tool in determining the presence and level of CO in the bloodstream. The Monoxor II is also available in a high range version (0-85,000 ppm) for vehicle emissions testing and forklift tuning.

Includes: Probe & hose assembly, carrying strap, instruction manual and hard carrying case

Single Gas Analyzers

Part Number	Description
BA-19-8004	Monoxor II
BA-19-8011	Breath Analysis Module Kit for Monoxor II
BA-19-8005	Oxor II
BA-19-8006	Nonoxor II
BA-19-8007	Dioxor II



Specifications for all Instruments:

	Nonoxor II (NO _x)	Dioxor II (SO ₂)	Oxor II (O ₂)	MonoxorII (CO)
Range	0 – 2000 ppm	0 – 2000 ppm	0 – 25.5%	0 – 2000 ppm
Sensor Life	2 years	2 years	1 year	1 year
Power Source: Four replaceable, C-size batteries (not included)				

Comfort Chek

Handheld Indoor Air Quality Analyzers

The Comfort Chek is a versatile handheld analyzer that is ideal for verifying indoor air comfort and quality. Available in two models, featuring datalogging, run and charge capability and a user-zero function for all gases.

- Model 100 – measures CO₂, barometric pressure, temperature, and humidity (features diffusion gas sampling)
- Model 200 – measures CO₂, barometric pressure, temperature, humidity and CO (features an internal pump for remote gas sampling)

Specifications:

Sensors: Electrochemical CO, Infrared CO₂

Dimensions: 5.5"L x 2.5"W x 1.4"D, 12oz.

Operating Range: CO₂: 0 - 10,000 ppm, 10 ppm resolution

CO: 0 – 500 ppm, 1 ppm resolution

Barometric Pressure: 21 – 36" Hg

Temperature: 0 - 104°F / 0.1°F resolution

Relative Humidity: 0 – 99.9% / 1% resolution

Power Source: Supplied with 110-220 volt wall charger, up to 10 hours operation on one charge



Comfort Chek

Part Number	Description
BA-19-8048	Comfort Chek 100 IAQ Analyzer
BA-19-8049	Comfort Chek 200 IAQ Analyzer

Snifit® 50 Carbon Monoxide Analyzers

The affordable Snifit® Carbon Monoxide (CO) analyzers can help you measure CO concentration levels in room air. This continuous operating instrument quickly and accurately measures levels of CO between 0 and 1,999 ppm. The Snifit analyzers are light as a feather and small enough to fit in your shirt pocket or hold in the palm of your hand.

Specifications:

Sensor Type: Electrochemical

Range: 0-1,999 ppm, 1 ppm resolution

Dimensions: 5.5" L x 2.0" W x 1.57" H, 8oz.

Datalogging: Continuous datalogging – up to 800 readings

Power Source: 9-volt battery, ~6 month battery life

Snifit®

Part Number	Description
BA-19-7059	Snifit® 50 CO Analyzer with digital display.
BA-24-7059	Calibration Kit
BA-54-1994	Calibration Gas (100 ppm)



Sniffs Carbon Monoxide



600 Series Basic 4 Gas Monitor

The 600 Series Basic 4 Gas Monitor is a low cost, lightweight and compact unit that has everything required to get the job done. The super tough rubber boot gives you a dependable non-slip grip while also adding impact and shock resistance. The unit features 4 independent sensor display and has a 2 year standard warranty.

Includes: Basic detector, 1 set of alkaline batteries, rubber protective boot, cal Hood, stainless steel clip, tubing and manual

Specifications:

Dimensions: 1.8"W x 3.0"H x 4.8"L, 23 oz.

Operating Range: LEL: 0 – 100% LEL, 1% LEL resolution

Oxygen: 0 - 25%, 0.1% resolution

CO: 0 – 1500 ppm, 1 ppm

H₂S: 0 – 250 ppm, 0.1 ppm

Power Source: Alkaline Batteries

Compliance: Intrinsically Safe for use in Class 1, Division 1, Groups A, B, C, and D, Class 2, Division 1, Groups E, F, and G, Class 3, Hazardous locations

600 Series

Part Number	Description
IA-963-640-316	600 Series Basic, LEL/ppm, O ₂ , CO, H ₂ S
IA-963-641-316	600 Series Basic, LEL/ppm, O ₂ , CO, H ₂ S, with pump
IA-933-000-021	Calibration Kit for LEL/ppm, O ₂ , CO, H ₂ S (58L cylinder with 4 gas mix, regulator and case)
IA-672-990-001	Soft Carrying Case

Low Cost & Basic

GX-2001, Personal 4 Gas Monitor

Weighing only 6 ounces and about the size of a pager, the GX-2001 simultaneously monitors combustibles, oxygen, carbon monoxide & hydrogen sulfide. Utilizing catalytic combustion, electrochemical and galvanic sensor technologies, each miniaturized sensor is manufactured with the same high quality control as the larger instruments.

Specifications:

Sampling Method: Diffusion type sampling method, hand aspirator optional.

Detection Principle: Catalytic combustion (combustible gases), electrochemical cell detection (CO, H₂S) and Galvanic cell (O₂).

Measuring ranges: Combustibles 0-100% carbon monoxide 0-500 ppm, oxygen 0-40.0% O₂, hydrogen sulfide 0-100.0 ppm.

Functions: TWA, STEL Peak Hold and Autocalibration functions. 40 hours datalogging.

Dimensions: 2.8"H x 2.2"W x 1.1"D, 6 ounces.

Compliance: Intrinsically Safe, Class I, Div. 1, Groups A, B, C, and D.

Affordable 4 Gas Monitor



GX-2001, Personal 4 Gas Monitor

Part Number	Description
RK-72-0233	GX-2001, 4 gas, LEL/O ₂ /H ₂ S, CO
RK-72-0232	GX-2001, 3 gas, LEL/O ₂ /H ₂ S
RK-81-HSCO-LV	Calibration Kit for RK-72-0233 & RK-0232
RK-72-0231	GX-2001, 3 gas, LEL/O ₂ /CO
RK-72-0230	GX-2001, 2 gas, LEL/O ₂
RK-81-CO-LV	Calibration Kit for RK-72-0231 & RK-72-0230
RK-49-2155	Charger for GX-2001
RK-49-2156	Datalogging/Charger Station (IR) with cable & Software
RK-81-1160	Hand Aspirated Sampler, w/10' hose probe

- All calibration kits include a 34 liter cylinder, calibration plate, regulator, case and tubing.
- Price includes Ni-Cad Battery Pack, Belt Clip

600 Millennium Series

The 600 Millennium Series is a durable gas monitor that provides reliable personal protection in a small unit. The monitor features an integral pump which is ideal for testing air quality in confine spaces, audible and visual alarms, four independent LCD displays, and full data logging capabilities.

Monitor Includes: 600 Millennium Series Monitor with pump, Calibration Hood, 110 VAC, 60 Hz Power Supply, 16 ft Tubing, Hydrophobic Filter, Manual, Belt Clip, Rubber Protection Sleeve, Training Video and Carrying Case.

Specifications:

Detection: Electrochemical, Catalytic

Dimensions: 1.8" W x 3.0" H x 4.8" L, 23 oz.

Operating Range:

LEL:	0 – 100% LEL, 1% LEL resolution
Oxygen:	0 - 25%, 0.1% resolution
CO:	0 – 1500 ppm, 1 ppm
H₂S:	0 – 250 ppm, 0.1 ppm

Power Source: NiCad Battery Pack, 110 Volt Power Supply

Compliance: Intrinsically Safe for use in Class I, Division 1, Groups A, B, C, and D areas.

600 Millennium Series

Part Number	Description
IA-973-621-916	Millennium, LEL/ppm, O ₂ , CO, H ₂ S
IA-933-000-021	Calibration Kit for LEL/ppm, O ₂ , CO, H ₂ S (58L cylinder with 4 gas mix, regulator and case)
IA-927-021-421	Datalogging Option with DataLink IR Pod and Cable Assembly

Lifetime Warranty on Electronics



Eagle

Eagle

One to Six Gas Portable Monitor

The EAGLE is a powerful, versatile instrument that does more than offer standard confined space protection. The EAGLE also provides detection combinations never before offered in a portable gas monitor featuring the industry's widest selection of high quality, long life and field proven sensors. Rugged, weatherproof, easy to operate and maintain, the EAGLE is the industry's answer to portable gas detection.

Specifications:

Alarm: Alarm levels are adjustable and can be latching or self resetting

Functions: Autocalibration, alarm silence, demand zero, peak hold and a wide variety of other features. Each channel has 2 alarm levels plus TWA and STEL alarms for toxic channels. PPM/LEL hydrocarbon detection (5 ppm resolution) and a methane elimination switch for environmental applications.

Sampling Method: Powerful, long-life pump can draw samples over 125 feet. Flow Rate approximately 2.0 SCFH

Power: Size D batteries, 4 alkaline or Ni-Cad. The EAGLE will continuously operate for over 30 hours on alkaline batteries or 18 hours on Ni-Cads

Dimensions: 10.5"L x 5.9" x 7" Tall, 5 lbs.

Accessories: Long hoses, special probes, datalogging (up to 4 gases), continuous operation adapters, remote alarms and strobes, dilution fittings, internal hydrophobic filter, etc, are available to help satisfy almost any application.

Compliance: Intrinsically Safe, Class I, Division 1, Groups A, B, C, and D. CSA / NTRL & UL classified (most versions)

Part Number	Description
RK-72-5101	Eagle, LEL/ppm hydrocarbons
RK-81-5101-LV	Calibration Kit for LEL/ppm
RK-72-5115-XX	Eagle, CO ₂ (specify range)
RK-81-511502-LV	Calibration for CO ₂
RK-72-5201	Eagle, LEL/ppm, O ₂
RK-81-5201-LV	Calibration Kit for LEL/ppm, O ₂
RK-72-5301	Eagle, LEL/ppm, O ₂ , H ₂ S
RK-81-5301-LV	Calibration Kit for LEL/ppm, O ₂ , H ₂ S
RK-72-5401	Eagle, LEL/ppm, O ₂ , CO, H ₂ S
RK-81-5401	Calibration Kit for LEL/ppm, O ₂ , CO, H ₂ S
RK-20-0640	Eagle Carrying Case, padded
RK-33-0156-01	Replacement Hydrophobic Filter Element (5/pack)
RK-49-2150-01	Charger (115VAC) and NiCads, added to Eagle
RK-57-0012	Datalogging board (Field or Factory Installed)
RK-82-5007	Datalogging Kit, Downloading

Gases & Detectable Ranges For The Eagle

Standard Confined Space Gases

Hydrocarbons	0 - 100% LEL
	0 - 50,000 ppm
Oxygen (O ₂)	0 - 40% Vol.
Carbon Monoxide (CO)	0 - 500 ppm
Hydrogen Sulfide (H ₂ S)	0 - 100 ppm
Super Toxins and Other Gases	
Ammonia (NH ₃)	0 - 75 ppm
Arsine (AsH ₃)	0 - 1 ppm
	0 - 200 ppb
Carbon Dioxide (CO ₂)	0 - 5,000 ppm
(IR Sensor)	0 - 10,000 ppm
	0 - 5% Vol.
	0 - 20% Vol.
	0 - 50% Vol.
Chlorine (Cl ₂)	0 - 3 ppm
Fluorine (F ₂)	0 - 5 ppm
Hydrogen Fluoride (HF)	0 - 9 ppm
Hydrogen Chloride (HCl)	0 - 5 ppm
Hydrogen Cyanide (HCN)	0 - 30 ppm
Methane (CH ₄)	0 - 100% LEL
(IR Sensor)	0 - 100% Vol.
Nitrogen Dioxide (NO ₂)	0 - 15 ppm
Ozone (O ₃)	0 - 1 ppm
Phosphine (PH ₃)	0 - 1 ppm
Silane (SiH ₄)	0 - 15 ppm
Sulfur Dioxide (SO ₂)	0 - 30 ppm

•The EAGLE can be provided with up to 6 gas sensors (4 Toxins maximum). Please specify gas combination when ordering.

Includes: alkaline batteries, hose, probe, shoulder strap and instruction manual



Available for Rent



PortaSens II

Part Number	Description
AT-00-0998	PortaSens II, 120VAC
AT-00-0981	Sensor Module Storage Case (4 Sensors)
AT-00-1010	Ammonia Sensor 0-50/ 500 ppm
AT-00-1011	Ammonia Sensor 0-500/ 2000 ppm
AT-00-1008	Ozone, 0-1/ 5 ppm
AT-00-1009	Ozone, 0-5/ 100 ppm
AT-00-1002	Chlorine, 0-1/ 5 ppm
AT-00-1003	Chlorine, 0-5/ 100 ppm
AT-00-1041	Hydrogen, 0-500/ 2000 ppm

• Other sensors available, please contact ERE.

PortaSens II

Interchangeable "Smart Sensors" for over 30 gases

The PortaSens II portable gas leak detector is a versatile tool for performing regular leak checks in gas storage areas, around process equipment and piping, or in confined spaces prior to entry. The detector contains an internal sample pump and a flexible sampling wand to allow pinpoint location of the source of leakage. A unique feature of the PortaSens II is its ability to measure a variety of different gases by simply inserting the appropriate sensor for that gas. This means that one detector can be used to measure over 30 different gases or vapors, reducing the need to purchase individual detectors for each type of gas. Sensors can be changed quickly and easily without the need for calibration when a sensor change is made.

Monitor Package Includes: PortaSens Gas Detector, 10" Teflon lined sampling wand, Battery charger, Spare filters, Flowmeter, RS-232 output cable, Spare "D" Battery, Calibration "T" fitting.

Specifications:

Dimensions: 3.5"W x 9"H x 5.5"D, 7lbs

Range: Dependent on Sensor

Memory: 12,000 data points, Internal data logger with RS-232 output

Sensitivity: 1% of sensor module range

Power Source: "D" cell battery, alkaline recommended, 75 hours operation, Internal rechargeable NiCad for backup power, 6 hours operation

450 Series Photoionization Detector

Features 3 year warranty on pump, lamp and electronics, simple operation and a great price

The 450 Series Photoionization Detector (PID) is a compact, easy to use, portable monitor which incorporates a Photoionization detector for detection of Volatile Organic Compounds. Offering fast response and high sensitivity.

Standard features include: a large LED display, 2 alarm set points, visual/audible alarm indications, built-in sampling system. The 450 Series PID can be easily calibrated with isobutylene.

Monitor Includes: 450 PID, sample probe, alkaline or NiCad batteries, charger, manual and soft carrying case.

450 PID System Kit Includes: 450 PID, sample probe, NiCad batteries, charger, calibration gas (103L), demand flow regulator, instruction manual and hard carrying case.

Specifications:

Detection: PID with 10.6eV lamp

Dimensions: 4"W x 4"H x 8"L, 3.2 lbs

Range: Low: 0.0 - 99.9 **High:** 0 - 999

Power Source: 4 'C' alkaline or nickel cadmium batteries. The AC adapter/charger will operate the unit or trickle charge the nickel cadmium batteries when unit is not in use.



450 Series Photoionization Detector

Part Number	Description
IA-954-450-350A	450 PID with Alkaline Batteries
IA-954-450-350N	450 PID with NiCad Batteries
IA-954-450-350	450 PID System Kit

The World's Smallest Photoionization Detector

ToxiRAE PLUS PID

The ToxiRAE Plus is a unique product ideal for monitoring a personal breathing zone. Running on rechargeable Ni-Cad batteries, this instrument clips easily onto a shirt pocket or hardhat for up to 10 hours of continuous monitoring.

Both Standard Monitor and Datalogging Monitor includes: rechargeable Ni-Cad batteries, 10eV UV lamp, single unit charging station, 110 VAC battery charger, alkaline battery adapter, and calibration adapter with tubing.

The Datalogging Monitor also includes: 4000-reading datalogging with time/date stamp and programmable, manual, periodic or scheduled start/stop. Includes software, ProRAE Suite Package for Windows™ 95, 98 & NT.

Specifications:

Alarm: 90dB buzzer and flashing red LED to indicated exceeded limits

Functions: STEL and TWA and PEAK Information, battery indication. Preprogrammed correction factors for 38 gases

Dimensions: 6" W x 1 3/4"H x 1"D

Compliance: UL and cUL classified intrinsically safe in Class I, Groups A, B,C, and D and Eex ia IIC T4



ToxiRAE PLUS PID

Part Number	Description
RA-007-0001-001	ToxiRAE, Standard Monitor
RA-007-0002-001	ToxiRAE, Datalogging Monitor
RA-007-9200-000	ToxiRAE PID Accessories and Calibration Kit

Accessories & Cal Kit Includes: Hard Transport case, leather cover/carry case, membrane filter (pack of 5), Isobutylene gas in a 34L cylinder with calibration Regulator and Tubing.

MiniRAE 2000 - The Most Popular PID in the World

The MiniRAE 2000 is a powerful Volatile Organic Compound Monitor. Its powerful pump and standard range of 0 – 10,000 ppm makes its an ideal instrument for surveying, while its easy lamp, sensor, and battery access make it extremely user friendly. There are 102 built-in correction factors from a list of 250 + chemicals, 15,000 point data logging storage capacity for data download to a P.C., pre-set alarm thresholds for STEL, TWA, low & high level peak values.

Monitor Only Includes: MiniRAE 2000 Monitor, RAE UV lamp, 10eV (specify other), 5" inlet probe, water trap filter, rubber boot with belt clip, alkaline battery adapter, tool kit, 120 V AC/DC wall adapter, operation video, operation & maintenance manual, soft leather carrying case.

Monitor with Accessories Kit also includes: Hard transport case, lamp cleaning kit, 5 porous metal filters and O-rings, organic vapor zeroing kit, gas outlet port and tubing.

Optional calibration kit includes: 100 ppm isobutylene calibration gas, 34 L, calibration regulator and flow controller.

Datalogging Monitors also include: Software, ProRAE Suite Package for Windows 95, 98 & NT, Computer interface cable.

Applications:

- Air Pollution
- Soil, well and water head space analysis

Specifications:

Detector: Photoionization sensor with standard 10.6 eV or optional 9.8 or 11.7 eV UV lamp

Functions: STEL and TWA and PEAK Information, battery indication. Preprogrammed correction factors for 102 gases

Dimensions: 8.2"L x 3"W x 2"H, 19.5 oz.

Compliance: UL and cUL classified intrinsically safe in Class I, Groups A, B, C, and D and Eex ia IIC T4

MiniRAE 2000

Part Number	Description
RA-011-0200-000	MiniRAE 2000, Monitor Only
RA-011-0200-100	MiniRAE 2000 w/Accessories and Cal. KIT
RA-011-0201-100	MiniRAE 2000 KIT w/ datalogging



Available for Rent

AreaRAE

The AreaRAE is a one-to-five sensor atmospheric monitor which can be optionally equipped with a wireless, RF (radio) modem which allows the unit to communicate and transmit readings and other information on a real-time basis with a remotely based controller up to two miles away from the AreaRAE detector. In its simplest form, the unit is a rugged, weatherproof, one-to-five sensor portable monitor that can run over 24 hours on either rechargeable lithium ion or disposable alkaline batteries. The AreaRAE is able to include a PID, as well as LEL, O₂ and up to two electrochemical toxic sensors for measurement of specific toxic substances such as CO and H₂S.

Monitor Only Includes: Monitor and sensors as specified with hard transport case, carbon filters (for units with CO), calibration adapter, quick reference guide, operation video, operational and maintenance manual, shoulder strap, rechargeable lithium-ion battery pack, 120V AC/DC wall adapter, Spare alkaline battery pack, 15' teflon tubing, tool kit, lamp cleaning kit (if with PID), 10 water trap filter, inlter probe 3", water trap adapter

Datalogging Monitors also include: ProRAE software and interface cable

Specifications:

Detector: Photoionization sensor with standard 10.6 eV or optional 9.8 or 11.7 eV UV lamp, protected catalytic bead for combustible gases, interchangeable electrochemical sensors for oxygen and toxic gases.

Functions: Instantaneous values (up to 4), sensor name, high and low values for all toxic detectors, STEL and TWA and PEAK Information, battery indication, elapsed time

Datalogging: 4000 points for each sensor, with time stamp, serial number, user ID, site ID, location info (with GPS option)

Operating Range: VOCs: 0 – 200 ppm, 0.1 ppm resolution
200 – 2000 ppm with 1 ppm resolution

Oxygen: 0 – 30%, 0.1% resolution

LEL: 0 – 100%, 1%

CO: 0 – 500 ppm, 1 ppm

H₂S: 0 – 100 ppm, 1 ppm

Other gases: NO, NO₂, Cl, HCN, NH₃, PH₃

Dimensions: 7.25" L x 6"W x 4.5"H, 4.5 lbs.

Compliance: Non-Wireless, UL and cUL classified intrinsically safe in Class I, Groups A, B, C, and D, Class 2 Groups E, F, G, Hazardous Locations, Temp Code T₃C. Wireless; Class 1, Division II, Groups A, B, C, and D.

Contact ERE For Detailed Information

**Wireless, Multi-channel
Compact and Easily
Transportable Multi-Gas
Monitor**



MultiRAE Plus

One to Five Gas Monitor with VOC Detection

The MultiRAE Plus is an extremely flexible monitor configurable as a diffusion or pumped instrument, with a variety of sensors and with alkaline or rechargeable batteries. The MultiRAE is the only instrument available on the market today that can offer protection using both standard gas detection sensors for the detection of oxygen, combustible gas, and specific toxic gases, as well as an integrated Photo-Ionization Detector (PID). The MultiRAE can be used as a personal monitor, a hand-held sniffer, or as a continuous operational monitor.

Monitor Only Includes: Monitor and sensors as specified with shipping case, carbon filters (for units with CO), calibration adapter, quick reference guide, operation video, operational and maintenance manual, rubber boot with belt clip, alkaline battery adapter, Rechargeable battery as specified (either standard rechargeable Ni-Cad or Optional, extended duration Lithium-ion. 120V AC/DC adapter. Pumped Units include: 10 Water trap filter, inlter probe 3", Water trap adapter

Monitor with Accessories Kit and Calibration Kit also includes: Above items, including: Hard transport case with pre-cut foam, 15" Tygon® tubing, constant flow hand pump (for diffusion models), Tool kit, lamp cleaning kit, four-gas mix is 34L cylinder, regulator (male and female), tubing, isobutylene gas in a 34L cylinder.

Datalogging monitors also include: ProRAE software and interface cable.

Applications

- Detects toxic vapors at ppm levels
- Fuel products-gasoline, diesel, jet fuels
- Paints and thinners-xylene, toluene
- Degreasers-trichloroethylene, MEK, MPK, perchloroethylene
- Resins, plastics, VCM-vinyl chloride monomer
- Industrial solvents-benzene, carbon disulfide, methylene chloride, butyl acetate

Specifications:

Detector: Photoionization sensor with standard 10.6 eV or optional 9.8 or 11.7 eV UV lamp, Protected catalytic bead for combustible gases, interchangeable electrochemical sensors for oxygen and toxic gases.

Functions: STEL and TWA and PEAK Information, battery indication.

Operating Range: VOCs: 0 – 200 ppm, 0.1 ppm resolution
200 – 2000 ppm with 1 ppm resolution

Oxygen: 0 - 30%, 0.1% resolution

LEL: 0 - 100%, 1%

CO: 0 – 500 ppm, 1 ppm

H₂S: 0 – 100 ppm, 1 ppm

Other gases: SO₂, NO, NO₂, Cl, HCN, NH₃, PH₃

Dimensions: 4.65" L x 3"W x 1.9"H, 16oz.

Compliance: UL and cUL classified intrinsically safe in Class I, Groups A, B, C, and D and Eex ia IIC T4

MultiRAE Plus

Part Number	Description
RA-009-3121-000	MultiRAE Monitor Only, LEL/O ₂ /H ₂ S/CO/10.6eV PID
RA-009-3121-004	MultiRAE w/ accessories and cal. kit
RA-009-3121-014	MultiRAE KIT w/ datalogging

Available for Rent



Applications

- Weapons of Mass Destruction - chemical warfare agents
- Emergency response to hazardous spills
- Indoor air quality in new, sick and mix usage buildings
- Personnel monitoring of very toxic compounds
- Drug detection



ppbRAE

The ppbRAE is the world's first Photoionization Detector (PID) capable of monitoring Volatile Organic Compounds at the parts per billion level. The ppbRAE is capable of zeroing out background VOCs making it an excellent resource for monitoring gases with low ppm alarm limits and miniscule changes. It is capable of providing ranges of 0 – 999 ppb, 0.01 – 9.99 ppm, and 0.1 – 199.9 ppm with 1 ppb, 0.01 ppm and 0.1 ppm resolution respectively. There are 102 built-in correction factors from a list of 250+ chemicals, 15,000 point data logging storage capacity for data download to a P.C., pre-set alarm thresholds for STEL, TWA, low & high level peak values.

Monitor Only Includes: ppb RAE unit with 10.6eV PID detector, nickel metal hybrid batteries, alkaline battery holder, inlet probe and water trap filter, operation and maintenance manual, soft carry case, pro-rae suite software (datalogging version).

Monitor with Accessories Kit also includes: Above items, including: Calibration gas with regulator and flow controller, porous metal filter and O-ring kit, gas outlet port and tubing, tool kit, hard Transport Case.

Specifications:

Detector: Photoionization sensor with standard 10.6 eV or optional 9.8 or 11.7 eV UV lamp

Functions: STEL and TWA and PEAK Information, battery indication. Preprogrammed correction factors for 102 gases

Dimensions: 8.2" L x 3"W x 2"H, 19.5 oz.

Compliance: UL and cUL classified intrinsically safe in Class I, Groups A, B, C, and D and Eex ia IIC T4

ppbRAE

Part Number	Description
RA-025-0200-000	ppbRAE, Monitor Only
RA-011-0200-100	MiniRAE 2000 w/ accessories and cal. kit
RA-011-0201-100	MiniRAE 2000 KIT w/ datalogging

Leakator® 10

Combustible Gas Leak Detector

The Leakator 10 is a low maintenance combustible gas leak detection unit, small enough to be operated with just one hand, yet loaded with the kind of advanced features and technology professionals demand. Leakator 10 comes complete with a flexible 20-inch long probe for hard-to-reach areas and a patented solid state sensor that will last for up to five years. Leakator 10 allows you to pinpoint large and small leaks quickly, while checking a relatively large area in a short amount of time with absolutely no calibration required.

Detects: Acetone, Acetylene, Benzene, Butane, Ethanol, Ethylene Oxide, Gasoline, Hexane, Hydrogen, Industrial Solvents, Methane, Paint Thinners, Propane, Natural Gas, and Naptha.

Specifications:

Sensitivity: 20 ppm useable sensitivity (methane), sensitivity thumb wheel

Power Source: Alkaline C-batteries, 30 hours operation

Compliance: UL listed, CE Mark, Intrinsically safe for use in Class I, Division 1, Groups A, B, C and D areas, UL classified, CSA certified

Leakator® 10

Part Number	Description
BA-19-7051	Leakator 10 with carrying case, gas sensor, flexible probe & instruction manual



Fyrite® Pro Combustion Analyzer

The new Fyrite Pro Combustion Analyzer offers precision you can rely on at an affordable price. The Fyrite Pro allows you to verify and adjust the efficiency of residential furnaces and appliances quickly and easily, enabling to increase overall service productivity. The compact and ergonomically designed Fyrite Pro provides quick and accurate measurement of oxygen (O₂), ambient and combustion air, stack temperatures, carbon monoxide (CO), draft and differential pressure.

Calculations include: combustion efficiency, excess air, carbon dioxide (CO₂) and CO air free.

Monitor Includes: carrying case, probe and hose assembly & batteries

Specifications:

Detection: Electrochemical

Measurement Ranges: Primary/Ambient Air Temperature: 32 to 212°F (0 to 100°C)

Flue Gas Temperature: 0 to 999°F (-18 to 537°C)

O₂: 0.1 – 20.9%

CO: 0 – 2,000 ppm

Draft/Differential Pressure: -10.0 to +27.0 in. WC

Calculated Ranges: Combustion Efficiency: 0.1 – 99.9%

CO₂: 0.1 to a fuel dependent maximum value in percent

CO (air free): 0 – 9,999 ppm

Excess Air: 0 – 250%

Dimensions: 7.5"H x 3"W x 2.2"D, 16oz.

Power Source: Four Alkaline AA Batteries - ~24 hours continuous use

Compliance: CE Certified



Fyrite® Pro

Part Number	Description
BA-24-8105	Fyrite Pro 125 O ₂ , CO, stack temp., air temp. & draft/differential pressure measurement
BA-24-0886	IR Printer

Model 300 Combustion and Environmental Analyzer

The Model 300 is an innovative electronic combustion and environmental analyzer for small to large condensing and non-condensing furnaces and boilers. It has a micro-processor that controls the sequence of operation while calculating burner efficiency. Programmed routines lead the operator through the proper procedures, signalling and appropriate action, and waiting until the correct steps are taken.

Specifications:

Measurement Ranges: Primary/Ambient Temp.: 0 to 999°F (-18 to 999°C)

Stack Temp.: 0 to 2,000°F (1,093°C)

O₂: 0 – 25%

CO: 0 – 3,000 ppm CO

NO_x: 0 – 2000 ppm (Model 300 NXSB)

SO₂: 0 – 2000 ppm (Model 300 NXSB)

Calculated Ranges: Combustion Efficiency: 0.1 – 99.9%

Stack Loss: 0.1 – 99.9%

Excess Air: 0 – 250%

CO₂: 0.1 – 20.0%

Power Source: Battery Pack and 120VAC Charger



Model 300

Part Number	Description
BA-24-8108	Model 300 w/ charger, battery pack
BA-24-8109	Model 300 w/ charger, battery pack, printer
BA-24-8132	Model 300 NSXB, w/charger, battery pack, printer



PCA® Portable Combustion Analyzer

Part Number	Description
BA-24-8043	PCA 25, O ₂ , CO, Temp., Draft/Diff. Pressure draft/differential pressure measurement
BA-24-0492	Calibration gas, 500 ppm CO, 103L

PCA® Portable Combustion Analyzer

The PCA is the perfect tool for furnace and boiler service technicians who need to determine carbon monoxide safety and combustion efficiency in combustion applications. The PCA directly measures and displays flue gas (O₂), primary and stack temperatures, draft, differential pressure, NO_x and CO. Simultaneously, the instrument calculates and displays combustion efficiency, excess air, CO₂, NO_x-Ref. O₂ and CO.

The PCA provides seven fuels: natural gas, oil 2, oil 4, oil 6, kerosene, liquid propane and coal, for calculating combustion values.

Monitor Includes: Carrying case, probe and hose assembly, factory calibrated and installed sensors, instruction manual, user guide, batteries.

Specifications:

Measurement Ranges: Primary/Ambient Temp.: 0 to 999°F (-18 to 999°C)

Stack Temp.: 0 to 2,192°F (-18 to 1,200°C)

O₂: 0 – 20.9%

CO: 0 – 4,000 ppm

Draft/Differential Pressure: -28.0 to +28.0in. WC

NO_x: 0 – 1000 ppm

Calculated Ranges: **Combustion Efficiency:** 0.1 – 99.9%

CO₂: 0.1 to a fuel dependent maximum value in percent

CO (air free): 0 – 9,999 ppm

Excess Air: 0 – 250%

NO_x (Ref. 0 to 15% O₂) : 0 – 9,999 ppm

Dimensions: 8"H x 3"W x 2"D, 1.5 lbs

Power Source: Four Alkaline AA Batteries - ~8 hours continuous use

Multi Purpose Gas Detector



Gas-Pointer® II

Part Number	Description
BA-51-7475	Gas-Pointer II, Combustible Gas, O ₂ , CO
BA-51-7451	Gas-Pointer II, Propane, CO
BA-51-8206	Accessory Kit, includes 10" aluminum probe assembly with filter chamber, foam filters and charcoal filters in a hard carrying case
BA-51-7324	Portable Calibration Kit, includes carrying case, regulator, hoses, fittings, flow indicator, and instructions (gas cylinder not included)

Gas-Pointer® II

The Gas Pointer II is an intrinsically safe instrument for measuring concentrations of methane (or propane), carbon monoxide and/or oxygen in ambient air and flue gases (with optional probe). This low cost, multi-function instrument can be used in a variety of different applications, primarily gas utility customer service personnel.

Specifications:

Ranges: Oxygen: 0 – 25%

Carbon Monoxide: 0 – 2000 ppm

Methane: 0 – 1000 ppm, 0 – 99% LEL, 5 – 99% Gas

Propane: 0 – 99% LEL, 2 – 10% Explosive, 11 – 99% Gas

Sampling Method: Internal sampling pump

Power Source: Rechargeable NiCad battery pack (6-8 hours of continuous operation)

Compliance: Intrinsically safe for use in Class I, Division 1, Groups A, B, C and D areas, UL classified, CSA certified.