



## *Cerex Monitoring Solutions, LLC.*

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# Product Information – UVHound Real-Time Multi-gas Analyzer

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Cerex Monitoring Solutions is pleased to present the following information to help you become familiar with the UVHound air monitoring equipment. The system can be configured to detect a variety of gases such as Ammonia, H<sub>2</sub>S, Benzene, Toluene, Xylene, Napthalene, Butadiene, and other hazardous pollutants. Most gases are detected at low parts per billion levels, and gas concentration results are produced on a real-time basis. Raw spectral files are saved, as well as the concentration data. Trend charts and reports can be easily prepared from the saved data. The software is developed to a level to allow any pc user to fully monitor the air for real-time concentrations of harmful chemicals. Add meteorological monitoring, and the package is a powerful tool to that can be used to assess gas concentrations and plume movements.

**P/N 70000 - Cerex UVHound Real-Time Multi-Gas Analyzer**



The UVHound analyzer is a point monitor device. The system has a fan on one end of the enclosure that draws in a high volume air sample. The air sample is passed across a long beampath of optical UV light. During the time the target-gas molecules are within the beampath, the gas is both identified and quantified, all in real time. This gas detection occurs in the order of seconds. However, most users select a reasonable data output rate, such as every 1 or 5 minutes. Options are available to do hourly averages, so that the results can be compared to OSHA exposure limits for human health impact.

A micro-computer within the analyzer runs user-familiar Windows XP. The data is stored locally within the analyzer, or even sent to a USB port where a simple pen-drive can be plugged in.

Communication with the system for setup and operation is done via wireless network connection from any pc or laptop. Optional long-range radio modem is provided for longer range access to the system. In addition, Cerex can provide remote internet connectivity.

If desired, user-selectable alarm levels may be present for each gas, individually. The alarm outputs can be seen locally, or as an option, sent to wireless devices (pagers, cell phones) or other indicators on the network. The outputs can also be sent to optional devices; relays can be switched to control visual indicators (lights), audible sirens. In some installations, the alarm trip is used to actuate another sensor, such as a summa canister.

The standard model of the UVHound is not waterproof, and care should be taken to insure a simple shelter is provided to prevent exposure to direct rain. The system is provided with a snorkel (shown in photos below with the flexible metallic hose). This allows the air intake to be remoted in such a way as to minimize the chances for water entry into the analyzer.

The system package is a complete, automated air monitor. The following components and accessories are included...

- UVHound (containing the following items);
  - o UV Integrated Spectrometer Optical Receiver Unit
  - o UV Deuterium Light Source
  - o Optical analysis chamber
  - o Embedded pc running Windows XP
  - o Port to plug in an external USB pen-drive (data management)
  - o Wireless communications with any pc (wireless network interface card required)
- 1(ea) 120 VAC power cable,
- 1 (ea) USB signal cable
- UVHound Continuous Monitor Software

- Spectral Library allowing real-time detection, quantification, and continuous monitoring of Benzene, Napthalene, Toluene, Hydrogen Sulfide, Xylenes, Ammonia, Carbon Disulfide, 1,3 Butadiene, Styrene, Formaldehyde, Acetaldehyde, Sulfur Dioxide, plus others listed in available Library Spectra (see UVHound brochure)
- Instructions which detail system operation, maintenance, and quality assurance procedures
- Free training at our facility in Atlanta, GA

### **(Optional) Meteorological Data (Wind speed and Direction)**

An optional meteorological station is available to allow concurrent measurements of wind speed and wind direction. With this option, software is included to allow the meteorological data to be logged into the same database as the gas concentrations.

(see attached specification sheet)

#### **Optional wind sensor upgrade**

*The 3-D sonic anemometer provides wind speed and direction. Software from Cerex integrates this met data directly with gas concentration data from the UVHound.*



### **Sealed Gas Calibration Cell**

A sealed gas cell “lollipop” is a convenient method of performing field calibrations. This standard cell is filled with a mixture of benzene and sulfur dioxide. These two gases were chosen due to their long term stability within the cell, plus the added benefit of producing absorption features over a wide area of the spectral analysis range of the instrument.



*Sealed gas cells allow easy, simple, traceable QA checks on the instrument and data. No expensive, heavy gas cylinders are required onsite.*

### **Flow-Thru Calibration Cell**

(A requirement when considering challenging a UVHound with Ammonia and other gases that are not long-term-stable in a sealed cell)

*Some gases are not stable in sealed cells. The flow-through cell allows the user to connect a standard certified cylinder of gas to perform QA.*



### **Custom Transit Case**

An optional hard transit case is available to house the UVHound and the pc. The case is custom designed to surround the internal system components with 2-inches of foam for protection.



### **On-Site Training**

Training is free at our factory in Atlanta. Typical training is less than one day.

Training includes:

- System setup and operation
- Software operation
- Data QA/QC
- Maintenance

**See Real-Time data from your UVHound on the Internet**

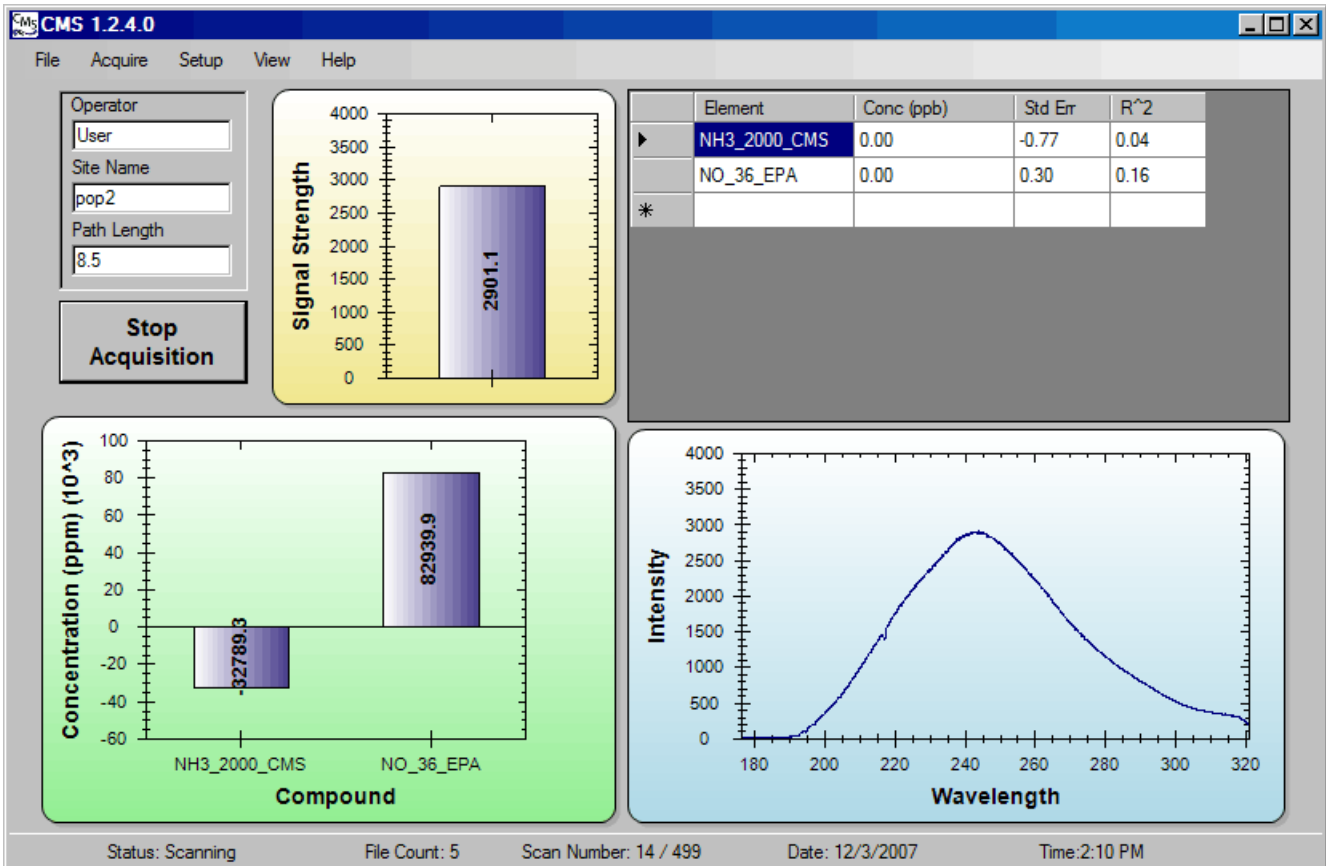
Optional software is available to allow the gas concentration data to be sent, real-time, to an internet site. The site can be password secured, or opened to anyone with internet access. The data upload can be done via dsl line, phone line, or even wireless cellular modem for operation in remote or mobile locations. If you are interested in this option, please contact Cerex for current pricing.

**Maintenance – Replacement UV Source**

The UV Source lamp is guaranteed for 2000 hours of operation. However, we have consistently noted that the typical life is in excess of 4000 hours.



*Shown above is the Cerex Mini-Hound.  
The smaller case size is more convenient in some applications. Minimum  
detection limits are higher than the full-size UV Hound.*



Ask about our new model **HOUND-FR (First Responder)**, available beginning **October 2008!**  
System features include;

- \* Designed for use by Firefighters/HAZMAT Teams to assess the quality of air in a post-fire event
- \* Resistant to water, mist, dust and smoke
- \* Battery Operation
- \* Local Display of Data
- \* Wireless connectivity to a remote display (PC)
- \* Portable, heavy-duty case

*Below – Real-time trend charts are generated within the software for each compound. In addition to the concentration, also depicted is the r-squared, or “data quality” number associated with each measurement.*

