OPERATION
MANUAL

Model AI-1100 Series Gas Monitor
Model AI-1200 Series Gas Monitor
V2

**Never test your Monitor directly
in the exhaust of any vehicle!**
See Cautions and Warnings on Pages 5-7

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DEFINITIONS

AI-110X: The complete family of Airspace Monitoring Systems Gas Monitors beginning with AI-110.

AI-1100 series: Same as AI-110X.

AI-120X: The complete family of Airspace Monitoring Systems Gas Monitors beginning with AI-120.

AI-1200 series: Same as AI-120X.

V2: An enhanced Gas Monitor from Airspace Monitoring Systems.

CAUTIONS AND WARNINGS

Caution! Carefully Read The Entire Manual Before Operating The Monitor.

Caution: The portable Airspace Gas Monitor has been designed to detect hazardous concentrations of CO or CO/Methane and many other flammable or explosive gases. When an alarm condition exists, take the appropriate actions to safeguard against life threatening situations.

Caution: Concentrations may actually be higher in the hazardous location than at the Monitor's location. Leave the area immediately if your Monitor is in moderate or high alarm. Return only after further testing together with appropriate safety procedures have determined that the area is safe for re-entry.

Caution: Airspace Ultrasense™ Monitor is recommended when precise readings of CO below 15 ppm is desired.

Caution: Do not leave the batteries in your Airspace Gas Monitor when the Monitor is not used for long periods of time.

Caution: Replace the Monitor's batteries when the Low Battery Indicator LED is flashing RED.

Warning: There are no serviceable parts inside the Monitor. Therefore, any dismantling of the Monitor will void its warranty.

Warning: When motion switch management has been selected, the Monitor will only sense gas for 45 minutes after its last non-zero gas reading or movement. After 45 minutes of no non-zero gas readings or movement, the Monitor will NOT function even though the On/Off switch is in the "On" position.

Warning: Not intended for use in atmospheres containing oxygen concentrations greater than 21%.

Warning: Substitution of components may impair Intrinsic Safety.

Warning: Batteries specified for use in your Airspace Gas Monitor are Duracell MN1500, Energizer LR6-AM3 (E91), or Rayovac LR6. Other 1.5 volt batteries will successfully power your Monitor but are not UL tested and therefore will void the UL Certification.

Warning: Never use vehicle exhaust to test an Airspace Gas Monitor, as byproducts of combustion can clog sensor filters and membranes, permanently disabling the CO sensor.

Warning: Airspace Monitoring Systems, Inc. will not honor the warranty if the product has been determined damaged due to gross contamination. Such contamination includes, but is not limited to: exposure to silicone vapors, highly corrosive materials, alkaline metals, vehicle exhaust, alcohols, immersion in water, and extreme cold. In addition, the warranty will be voided if the product has been damaged by causes that include but are not limited to: water condensation, exposure to a very high density of gas, and long term exposure to high humidity, extreme temperatures, and/or very high contamination levels.

ABOUT YOUR AIRSPACE GAS MONITOR

Dear Airspace Gas Monitor Owner,

Thank you for purchasing an Airspace Gas Monitor. Airspace Monitoring Systems is proud to offer you this innovative Gas Monitor with Advanced Gas Sensor (AGS) Technology™. We developed our family of CO and CO/ Methane and Flammable Gas Monitors with your safety in mind. Our goal is to provide you a more easily maintained, affordable, long lasting, and easy to use dangerous Gas Monitor. To that end, AGS Technology requires no routine bump testing and no calibration for five years. We offer the industry's first and only five year warranty which includes the sensor to insure your satisfaction. Also, as your dangerous gas detection partner, we ask that you contact us with questions or concerns. Your successful experience with our Monitors is very important to us. We will be glad to help. You can reach us at:

info@airspaceinc.com or 1-888-654-5126

WHAT YOU SHOULD KNOW ABOUT
CO AND LEL GASES

Carbon Monoxide (CO) is a tasteless, colorless, odorless gas that causes headaches, disorientation, nausea, and death, even in very low concentrations. Often misdiagnosed as symptoms that mimic the flu, it is the leading cause of accidental poisoning deaths in the United States and throughout the world.

Carbon Monoxide poisons by inhibiting the blood's ability to carry oxygen to body tissues including vital organs such as the heart and brain. When a person breathes, oxygen in the lungs combines with hemoglobin in the blood and travels to the body's cells. When CO is inhaled, it tightly binds with the oxygen carrying hemoglobin of the blood, forming carboxyhemoglobin. Once combined with the hemoglobin, oxygen is replaced and the oxygen-carrying capacity of the blood is reduced. The level of carboxyhemoglobin build up is influenced by three main factors: (1) the concentration of the gas being inhaled (measured in parts per million or ppm), (2) length of exposure, and (3) rate of respiration and circulation (affected by workload, temperature, altitude, and one's health).

Adding to the effects of the exposure is the long half-life of carboxyhemoglobin in the blood. Half-life is the measure by how quickly levels return to normal. The half-life of carboxyhemoglobin is approximately 5 hours. This means, for a given exposure level, it will take about 5 hours for the level of carboxyhemoglobin in the blood to drop to half its current level after the exposure is terminated.

The following chart shows the maximum allowable exposure limits and symptoms developed for CO inhalation:

CONCENTRATION OF CO IN AIR*	INHALATION TIMES AND TOXIC SYMPTOMS
9 ppm	The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 62-1989 for living areas. ASHRAE requires that ventilating air meet the outdoor air standard as determined by the Environmental Protection Agency (EPA) - a person should not breathe over this limit in any 8 hour period.
25 ppm	The threshold limit value (TLV) for continuous exposure in any 8 hour period adopted by The American Conference of Governmental Industrial Hygienists (ACGIH).
35 ppm	The recommended exposure limit (REL) for continuous exposure in any 8 hour period according to the National Institute for Occupational Safety and Health (NIOSH).
50 ppm	The permissible exposure limit (PEL) for continuous exposure in any 8 hour period according to Occupational Safety and Health Administration (OSHA).
100 ppm	The exposure limit to remove employees from enclosed spaces according to OSHA.
200 ppm	Mild headache, fatigue, dizziness, and nausea after 2-3 hours. Maximum concentration allowable at any time according to NIOSH.
400 ppm	Serious frontal headache within 1-2 hours. Life threatening after 3 hours. The short term exposure limit (STEL) which is a 15 minute time-weighted average concentration adopted by ACGIH.
1500 ppm	Headache, dizziness, and nausea within 30 minutes. Death within 1 hour. The instantaneous exposure limit or immediately dangerous to life and health (IDLH) according to OSHA.

* Exposure to CO will have varying effects depending upon the person (size, age, sex, and health) and the environment (temperature and altitude).

For AI-1201 Monitors

Like Carbon Monoxide, Methane (CH_4) is a colorless, odorless gas with a wide distribution in nature. It is the principal component of natural gas, a fossil fuel. It is released into the atmosphere when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, swamps and marshes, termites, and oceans. Man-made sources include the mining and burning of fossil fuels, digestive processes in ruminant animals such as cattle, rice paddies, and the burying of waste in landfills.

At room temperature, Methane is a gas less dense than air. It melts at -183°C and boils at -164°C. It is not very soluble in water. Methane in general is very stable, but mixtures of Methane and air, with the Methane content between 5 and 15% by volume, are explosive. Unlike Carbon Monoxide, Methane is not toxic when inhaled, but it can produce suffocation by reducing the concentration of oxygen inhaled.

The Airspace AI-1201 Monitor is set to alarm at 5000 ppm, 10% of Lower Explosive Level (LEL) of Methane, to alert you of the danger for explosion. If your AI-1201 Monitor is alarming, it is our suggestion you leave that area if not properly equipped and trained for appropriate response.

Your Airspace AI-1201 Monitor will also respond to other flammable and explosive gases. Natural gas, propane, gasoline, hydrogen, acetylene, benzene and toluene are just some of the other gases that will be sensed by the AI-1201 Monitor.

PRODUCT DESCRIPTION

Airspace Gas Monitors are factory calibrated and designed to detect concentrations of hazardous levels of CO or CO/Methane and other flammable or explosive gases in parts per million (ppm). Made of rugged polycarbonate material, the Monitors are lightweight, AA battery powered, and portable with various options and accessories.

The Airspace Monitors detect lethal gas using Advanced Gas Sensor (AGS) Technology™. AGS Technology™ uses sophisticated software with a solid state sensor to respond quickly to CO or CO/Methane and other flammable or explosive gases. With AGS Technology™, the sensor requires no routine bump testing or calibration, although we do recommend the Monitor's performance be verified on a periodic basis. More information on verification is described in the "Maintenance and Troubleshooting" section.

All Airspace Gas Monitors provide both audible and visual alarms. The CO Monitor has three alarm levels: low, medium, and high. The AI-1201 CO/Methane and Flammable Gas Monitor has one alarm level set to 10% of the LEL of Methane in addition to the three alarm levels for CO. The audible alarm, as well as the optional vibration alarm, can be temporarily silenced for four minutes with a press of the multi-purpose button. In addition, AI-120X Gas Monitors have a LCD screen to show the gas levels in ppm. A backlight for the LCD screen can be activated at any time by pressing the multi-purpose button.

The AI-1201 Monitor has been calibrated to Methane, though it will also detect other flammable and explosive gases. The AI-1201 Monitor is not capable of showing you which potentially flammable or explosive gas it is responding to so it is very important to be observant of the environment you are entering and to have an awareness of which gases might cause a response in that environment. It is also important to be aware some flammable gases may reach their LEL before your AI-1201 Monitor alarms because the alarm is set to 10% of the LEL of methane. Therefore, know that the numbers you will be observing will not be accurate for gases other than Methane. Still, it is very valuable to be able to detect an ambient air saturation of a potentially flammable or explosive gas and monitor its trend. If you are not trained to work with LEL monitors, we recommend you pursue training to properly interpret the readings of your AI-1201 Monitor.

The AI-1201 Monitor will display a CH_4 symbol to identify Methane and other flammable gases. AI-120X Monitors will use a CO symbol to identify Carbon Monoxide and related gases (e.g., alcohols). When detecting CO, the numeric level of the gas concentration will be very accurate from 15 ppm to 250 ppm. For Methane, the AI-1201 Monitor will accurately display values from 100 ppm to 5,000 ppm.

Airspace Gas Monitors are powered by two (2) AA alkaline batteries that can provide up to four months of typical operation during an 8 hour shift, 5 days a week. 24/7 battery life will be up to 40 days (assuming a no gas detected condition) or can be extended by selecting the motion switch management. When motion switch management is enabled, the Monitor will automatically turn on whenever the Monitor is moved and turn off after 45 minutes of no movement or non-zero gas readings. With the motion switch enabled, any new movement will cause the Monitor to actively sense for another 45 minutes. For maximum battery life, motion switch management should be used when the Monitor will be moved infrequently, (i.e., less than a couple of times per day).

Monitors with motion switch management enabled will often detect motion when left in a moving vehicle. Therefore, Monitors stored in an active vehicle should get better battery life if motion switch management is not used.

Batteries specified for use in your Airspace Monitor are Duracell MN1500, Energizer LR6-AM3 (E91), or Rayovac LR6. Other AA batteries will power your Monitor but are not UL tested so use of them will void UL Certification.

Caution: Remove the batteries if your Airspace Gas Monitor is to be stored for long periods of time.

Airspace Gas Monitors are UL tested and certified to be Intrinsically Safe for use in Class 1, Division 1 Group A, B, C, and D, T3C, Hazardous Locations.
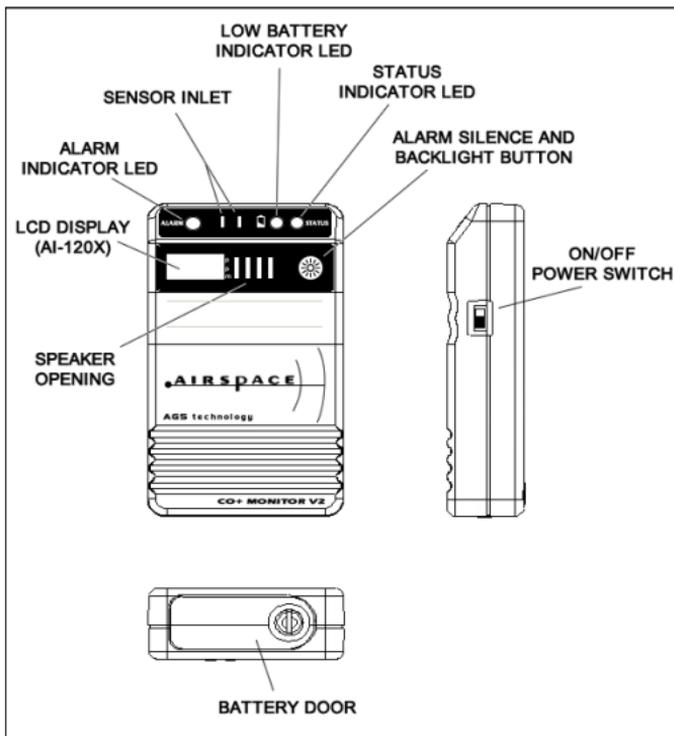
Case: The case is constructed of a Polycarbonate/ Acrylic
blend polymer with integrated ESD and anti-static protection.

On/Off and Motion Switch Power Management:
Sliding the power switch toward the top of the Monitor turns power on. Motion switch management may be chosen at start up by pressing the multi-purpose button until the Monitor responds with 3 beeps to acknowledge the motion switch has been enabled.

Battery Door: Covers battery compartment using a universal screw, which can be opened by using a coin or screwdriver.

Speaker Opening: Speaker for the audible alarm to warn of hazardous conditions. The speaker alarm is approximately 92 decibels so caution should be used placing the Monitor near ones ear.

LCD Display: (only in AI-120X Gas Monitors) Displays numeric indication of CO and/or Methane or other flammable or explosive gas levels and gas identification icon—CO for Carbon Monoxide and CH_4 for methane and other flammable or explosive gases.

Alarm Indicator LED: Visual indication to warn of hazardous conditions. Red for CO, Orange for Methane or other flammable or explosive Gas.

Sensor Inlet: Inlet for sensing concentrations of gas.

Low Battery Indicator LED: Visual indication to warn of low battery life.

Status Indicator LED: Visual indication of the condition of the Monitor. Green indicates all is well.

Multi-Purpose Motion Switch, Alarm Silence, and Backlight Button: Press and hold for five seconds at start up to select motion switch management. Press to turn on the LCD backlight at any time. During an alarm condition, press to temporarily silence the audible alarm, as well as the optional vibration alarm.

POWER UP

The Power switch is "On" when in the up (toward the top of the Monitor) position. The default operation of the Monitor will NOT use motion switch management. To use motion switch management, press the multi-purpose button and hold it for five seconds while starting up the Monitor. Three consecutive beeps and, for AI-120X Monitors "ALt" on the LCD screen, will confirm motion switch management has been activated. **This step must be repeated every time the Monitor is turned on if one wants to enable motion switch management since cycling the On/Off switch or replacing batteries will return the Monitor to its default operation.**

At power up, all Airspace Gas Monitors will automatically perform a sequence of self-tests during which time the Status LED will be on solid YELLOW, followed by the visual sequencing of all LEDs to show they are functional.

A momentary audible alarm will occur to verify the operation of the speaker and the Vibration feature, if installed, will briefly activate.

The Monitor will next enter its self check and warm-up with the Status LED flashing RED for approximately 5 seconds and then flashing YELLOW. Once the check and warm-up is complete, the Status LED will flash GREEN and the device is ready for its main function of measuring CO or CO/Methane and other Flammable or Explosive gas values. The green flashing status light is visual confirmation that the Monitor is functioning properly.

GAS SENSING

All Airspace Gas Monitors will sample at their fastest rate initially or any time gas or movement (if motion switch management is enabled) is detected. For AI-1201X Monitors, the gas sampling rate of 4 seconds also means that the LCD will be updated at this rate with any new information. The fastest sampling rate will continue as long as the Monitor is detecting gas or movement (if enabled). If the Monitor does not detect gas or movement (if enabled) for 30 minutes, the Monitor will enter a battery conserving sampling rate.

When the Monitor is using its default operation (i.e., motion switch management disabled), it will beep three times to indicate that it is using the battery conserving sampling rate. The Monitor will continue at this sampling rate until it acquires a non-zero gas value. Upon acquiring such a value, the Monitor will return to its fastest sampling rate.

If no movement or gas is detected for 30 minutes, a Monitor using motion switch management will also enter the battery conserving sampling rate. However, with the motion switch management enabled, the battery conserving sampling rate will continue for only an additional 15 minutes. After this 15 minute period (i.e., 45 minutes without gas detected or movement), the Monitor will stop sampling. It will indicate that sampling has stopped by beeping three times and, for an AI-120X Monitor, the word "OFF" will be displayed on the LCD. The Monitor will not sample again until it senses movement.

The rate that the Status LED flashes will indicate the state the Monitor is in:

1. When using the fastest sampling rate, the Status LED will flash every 3 seconds for AI-120X Monitors and every 5 seconds for AI-110X Monitors.
2. When using the battery conserving sampling rate, the Status LED will flash every 10 seconds.
3. If the Monitor is using motion switch management and it has been over 45 minutes since the Monitor detected movement or gas, the Status LED will not flash though the On/Off switch will be in the "On" position.

By switching the On/Off switch to "Off" then back to "On", all Airspace Monitors will return to their fastest sampling rate. In addition, the Monitor will return to its default operation mode if it was in motion switch management.

CO/METHANE/FLAMMABLE GAS DISPLAY (AI-1201)

The AI-1201 Gas Monitor automatically looks for Methane, other Flammable or explosive gases and CO. CO will be identified with the CO symbol. The CH_4 symbol will identify Methane and other hydrocarbons and flammable gases. The following table describes what will be placed on the display:

CO/CH$_4$	CH$_4$ Reading = 0 ppm	CH$_4$ Reading from 1 to 499 ppm
CO Reading from 0 to 8 ppm	The display will alternate between the CO reading and the CH$_4$ reading.	The display will only show the CH$_4$ reading.
CO Reading from 9 to 119 ppm	The display will only show the CO reading.	The display will only show the CO reading.
CO Reading of at least 120 ppm	The display will only show the CO reading.	The display will only show the CO reading.

CH$_4$ Reading from 500 to 4999 ppm	CH$_4$ Reading of at least 5000 ppm
The display will only show the CH$_4$ reading.	The display will only show the CH$_4$ reading.
The display will alternate between the CO reading and the CH$_4$ reading.	The display will only show the CH$_4$ reading.
The display will only show the CO reading.	The display will alternate between the CO reading and the CH$_4$ reading.

ALARMS

CO Alarm Level

All Airspace Gas Monitors have three alarm levels for CO. These levels are 30, 60, and 120 ppm. The alarm will trigger if the CO value is greater or equal to the limit for any single measurement. The AI-120X Gas Monitor will display the actual concentration of CO up to 250 ppm.

Methane/Flammable Gas Alarm Level

Airspace AI-1201 CO/Methane/Flammable and Explosive Gas Monitors have an alarm level based on a methane calibration. This level is set at 5000 ppm or 10% of the LEL of methane. The alarm will trigger if the Methane value is greater than or equal to the limit for any single measure-ment and/or other Flammable or Explosive gas is present in great enough quantities to trigger the alarm. The AI-1201 Gas Monitor will display the actual concentration up to 5,000 ppm for methane. The concentration for other Flammable or Explosive gases will be displayed, but will not be accurate in ppm because the calibration is to Methane.

CO LEVEL (in ppm)	ALARM LEVEL	AUDIBLE DUTY CYCLE	VISUAL DUTY CYCLE	LCD DISPLAY
30 - 59	LOW	Beeps every 5 seconds	RED LED flashes every 5 seconds	CO Level and icon
60 - 119	MEDIUM	Beeps every second	RED LED flashes every second	CO Level and icon
120 or >	HIGH	ON	RED LED flashes 2 times per second	CO Level and icon

Methane Alarm actions when activated (AI-1201):

METHANE LEVEL (in ppm)	ALARM LEVEL	AUDIBLE DUTY CYCLE	VISUAL DUTY CYCLE	LCD DISPLAY
5000 or >	HIGH	Beeps 2 times per second	ORANGE LED flashes 2 times per second	Methane Level and icon flash every 0.5 seconds

LCD equipped models will show actual methane readings from approximately 100 ppm up to the 5000 ppm alarm state. The LCD screen will then flash 5000 until readings drop below the alarm level. The LCD screen will display a methane symbol for many Flammable and Explosive gases, but the numbers will always relate to the methane calibrated values.

CO and Methane Alarms (AI-1201 Monitors)

When both the CO and Methane alarms activate on the CO/Methane Monitor, the Alarm LED will be ORANGE and flash RED as described in the CO Alarm table. The audible alarm will beep at 2 times per second.

<u>Vibration Alarm (Optional)</u>

If the vibration alarm option is installed, the vibration time for the first minute for all alarms will be 3 seconds ON and 7 seconds OFF. After the first minute, the vibration time for all alarms will be 3 seconds ON and 25 seconds OFF.

ALARM SILENCE AND BACKLIGHT

The backlight on AI-120X Monitors can be activated at any time by pressing the multi-purpose button. Pressing that button will turn on the light for 30 seconds each time if not in alarm.

Accept or acknowledge an alarm by pressing the same button. Doing so will silence the alarm and for AI-120X Monitors, activate the backlight to help you view what is alarming. The backlight will then stay on for the duration of the alarm event, but the alarm will reactivate in four minutes if the Monitor is still sensing a dangerous gas. It can be temporarily disabled for another four minutes by pressing the button again.

The Alarm Silence temporarily disables the audible alarm as well as the optional vibrating alarm. The Alarm Indicator LED as well as the LCD will continue to note the alarm event during the silence period.

The alarm event will continue until the gas level drops below the lowest alarm level.

STATUS AND LOW BATTERY INDICATOR LEDS

In addition to the Alarm Indicator LED, all Airspace Gas Monitors have two other LEDs. They are labeled the Status Indicator and the Low Battery Indicator. The Status LED will give a visual indication of the condition of the Monitor. The Low Battery LED will give a visual indication of the batteries' remaining life. For more information on the function of these LEDs, please see the following "Maintenance and Troubleshooting" section.

MAINTENANCE AND TROUBLESHOOTING

Care should be taken to ensure the sensor is not exposed to extremely high contamination levels or is damaged by water. If a problem occurs with the Monitor's sensor, consult the factory regarding replacement.

If the Airspace Gas Monitor is stored in an area where it is exposed to cigarette smoke, cooking residue, cleaning agents with silicone, alcohols or other contaminants, it may register some CO when turned on to indicate it has been contaminated. Place the Monitor in clean air and leave it turned on until it returns a zero reading. Airspace Gas Monitors are designed to "burn" themselves clean after exposure.

If you suspect a low reading may be contamination, simply place the Monitor into clean air. If it does not clear, it is indicating contamination. Place fresh batteries into the Monitor and leave it in clean air overnight. If that does not clear it, call our service department for an RMA to send it in.

In the event your Monitor has experienced a fatal contamination (so much contamination the sensor has been overwhelmed), all Airspace Monitors will go into a full alarm. In addition, the AI-120X Monitors will display "ERR" in the LCD screen to alert you the Monitor has been fatally affected.

If the Airspace Gas Monitor is to be stored for long periods of time, we recommend removing the batteries to avoid the possibility of them leaking acid and destroying the circuit board. Two batteries will fit into the CC-01 carrying case while outside the Monitor so they can be available and ready to go in an emergency.

Although Airspace Gas Monitors are designed to fail safe, we do recommend performing periodic verification checks. In addition, one should perform a verification whenever the Monitor has been significantly shocked or exposed to wet ash, chemicals, water, very cold temperatures, long terms of storage, etc. Verifying the Monitor is functional can be achieved by simply exposing it to a level of gas that exceeds the alarm level. Our TK-01 Bump Test Kit offers a simple and inexpensive way to verify our Monitors. For more information, please call Customer Service at 262-250-9200.

Airspace Gas Monitors will automatically enter into a Fault Mode if they detect any recoverable or unrecoverable error. To indicate Fault Mode, Airspace Gas Monitors will trigger both audible and visual alarms. Low Battery and Outside Operating Temperature Faults are recoverable errors. Dead Battery and Hardware Faults are unrecoverable errors.

FAULT	AUDIBLE DUTY CYCLE	VISUAL DUTY CYCLE	ACTION	LCD DISPLAY
LOW BATTERY FAULT	Beeps every 5 minutes	BATTERY LED (RED) flashes every 10 seconds	Continues normal readings	Normal readings
OUTSIDE OPERATING TEMPERTURE FAULT	Beeps every 10 seconds	STATUS LED (ORANGE) flashes every 10 seconds	Continues normal readings, but might not be as accurate.	Normal readings, but might not be as accurate
DEAD BATTERY FAULT	None	BATTERY LED (RED), STATUS LED (RED) ON	Stops reading	Err will be displayed
HARDWARE FAULT	Beeps every 10 seconds	STATUS LED (RED) ON	Stops reading	Err will be displayed
FATALLY CONTAMINATED SENSOR	Full Alarm	GREEN	Stops reading	Err will be displayed

If the Low Battery Indicator LED is flashing RED, the batteries have reached the last 5% of their life. Steady RED indicates the batteries are dead and the Airspace Gas Monitor will not function.

Caution: When replacing the batteries, install them in the correct orientation according to the battery icons on the back of the case near the battery door.

If the Monitor is operating normally, the Status Indicator LED will flash GREEN at the rate described in the "Gas Sensing" section of this manual.

If the Status Indicator LED is flashing ORANGE, there is a recoverable error with the Monitor.

If the Status Indicator LED is steady on RED, there is an unrecoverable (major failure) error with the Monitor.

OPTIONAL ACCESSORIES

Accessories	Part #
Single Unit Case (Recommended)	CC-01
Grip Clip (No charge option)	GC-01
Belt Clip (No charge option)	SC-01
Bump Test Kit (test gas required)	TK-01
CO Test Gas 50 ppm CO test gas 150 ppm	CO50-34L CO150-34L
Vibrate Option	-V

SPECIFICATIONS

Sensor Type	Solid-State Semiconductor
Sensor Life	> 5 Years
Size	3.9"H x 2.3"W x .9"D (99mm x 58mm x 23mm)
Weight	4.8 oz (136g)
Battery	(2) 1.5 V AA Alkaline
Battery Life	Up to 6 weeks if on continuously @ 25°C (non-alarming). Typical to expect longer when using motion switch management.

Temperature
  Operating:
  Storage:
	-4° to 113°F (-20° to 45°C)
	-40° to 158°F (-40° to 70°C)

Humidity	10 to 95% RH (non-condensing)
Pressure	15500 to -1300 ft (420 to 795 mmHg)
Warm-up Time	60 seconds
Response Time	30 seconds typical
CO Alarm Points	30 ppm = low alarm 60 ppm = medium alarm 120 ppm = high alarm
Methane Alarm Point	5000 ppm (10% of LEL)
Calibration	No routine calibration required. Periodic verification recommended.
Agency Approval	UL Class 1, Div 1, Groups A, B, C and D, T3C, Hazardous Locations.

WARRANTY

Airspace Monitoring Systems, Inc. warrants that this product will be free of defects in materials and workmanship under normal use and service for a period of five (5) years from the date of purchase. The warranty covers both parts and labor. Expendable items such as batteries and filters are not covered by this warranty.

Products believed to be defective must be returned prepaid to Airspace Monitoring Systems, Inc. for inspection within the warranty period. Shipments will not be accepted without an RMA number (see "Return Material Authorization (RMA)" section). If Airspace Monitoring Systems, Inc. deems the product defective through inspection, Airspace Monitoring Systems, Inc. will repair or replace the product, at its option, free of charge. The product will then be returned prepaid to any location in North America via standard shipping. This warranty service is provided to the original purchaser when proof of purchase date is given.

Liability for shipping charges and damage or loss due to the careless or deliberate acts of the shipper or contract affiliates in either direction is not covered in the terms of this warranty. All warranty claims are dependent upon the proper use of the product in the application anticipated by the manufacturer. Only the benefits specified are provided by this warranty. This warranty does not encompass defects which result from acts beyond the control of Airspace Monitoring Systems, Inc. including, but not limited to:

damage by accident, negligence, tampering, or misuse, failure to operate in concurrence with the instructions detailed in the Operation Manual, repairs or modifications performed by any person other than Airspace Monitoring Systems, Inc.'s authorized service personnel, use of any replacement parts not specified by Airspace Monitoring Systems, Inc., or by acts of nature. Airspace Monitoring Systems, Inc.'s liability under no circumstances will exceed replacement of the product found to be defective.

Airspace Monitoring Systems, Inc. will not honor this warranty if the product has been determined damaged due to gross contamination. Such contamination includes, but is not limited to: exposure to vehicle exhaust, alcohols, benzene, silicone vapors, highly corrosive materials, alkaline metals, immersion in water, and extreme cold. In addition, the warranty will be voided if the product has been damaged by causes that include but are not limited to: water condensation, exposure to a high density of gas, and long term exposure to high humidity, extreme temperatures, and/or high contamination levels.

THE FULL EXTENT OF AIRSPACE MONITORING SYSTEMS, INC.'S LIABILITY IS STATED IN THIS WARRANTY, WHICH OFFERS NO OTHER WARRANTIES OR GUARANTEES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. AIRSPACE MONITORING SYSTEMS, INC. SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE.

RETURN MATERIAL AUTHORIZATION (RMA)

Contact Airspace Monitoring Systems, Inc. to receive a return material authorization (RMA) for warranty and non-warranty service. You will need this RMA number to return your Monitor to the factory for repair or replacement. To obtain an RMA number, contact customer service at 1-888-654-5126, fax at (262) 250-1161, email at info@airspaceinc.com, or write to the following address:

AIRSPACE Monitoring Systems, Inc.
Attn: Customer Service
W143 N9354 Henry Stark Road
Menomonee Falls, WI 53051

When shipping the device, be sure to enclose your return address and telephone number, purchase order, shipping and billing information, RMA number, description of the problem, and any special instructions. For warranty service, please include your proof of purchase date. All returns should be packaged and sent to the above address
"ATTN: Customer Service (RMA: _____)"
for expedient repair and return of your unit.

FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Since this equipment generates, uses, and can radiate radio frequency energy, it may cause harmful interference to sensitive equipment.

If this equipment does cause interference to radio and television reception, which can be determined by turning the Monitor off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the Monitor and receiver.
- Consult the factory, dealer or an experienced radio/TV technician for help.

Notes:

Airspace Monitoring Systems, Inc.

W143 N9354 Henry Stark Road
Menomonee Falls, WI 53051
Ph: 262-250-9200
Fax: 262 250-1161
info@airspaceinc.com
www.airspaceinc.com