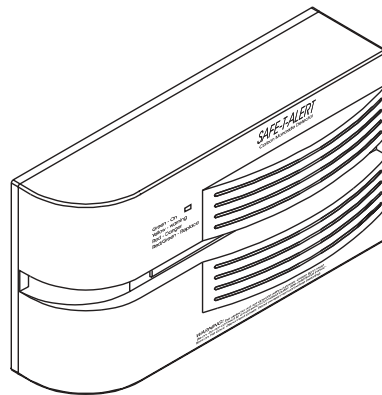
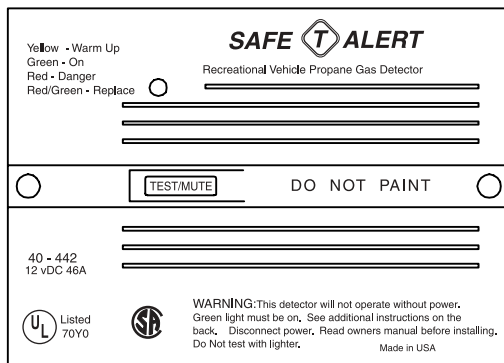


Detectors

Addendum



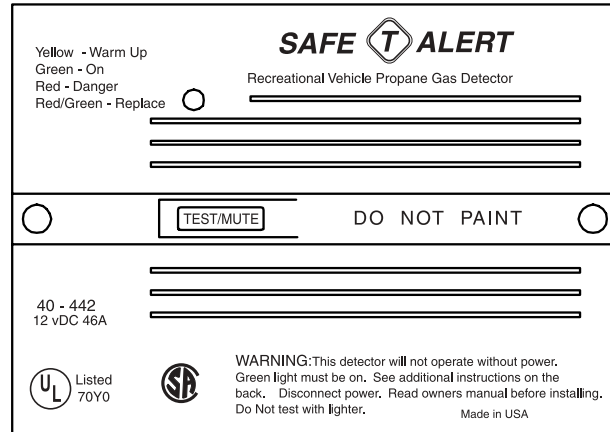
Marquis
Patriot
Contessa
Monterey

The information printed here reflects product design, fabrication, and component parts at the date of printing. The manufacturer reserves the right, at any time, to make changes in product design or material or component specifications as its sole option, without notice. This includes the substitution of components of a different brand or trade name, which will result in comparable performance. All information printed in this document is subject to change after the date of printing. Due to product improvements, changes during the model year and/or transcription errors that may occur, information represented within the owner's manual and/or this document may not be accurate at the time of your purchase. Please confirm any information with your dealer.

©Copyright Monaco Coach Corporation. All rights reserved. All trademarks or registered trademarks are property of their respective holders. Brand name products of other companies mentioned in this addendum are not endorsed by Monaco Coach Corporation.

The LP-Gas detector is required safety equipment in RVs. American National Standards Institute (ANSI) A119.2 - Fire & Life Safety 3-4.8 LP Gas Detectors states, " An LP Gas detector must be installed in any RV that contains an LP Gas appliance and an electrical system. The LP Gas detector must be listed as suitable for use in recreational vehicles under the requirement of UL 1484 Residential Gas Detectors, and be installed according to the terms of its listing."

LP-GAS DETECTOR



20043

It detects both LP-Gas and methane gas. Liquefied Petroleum (LP) Gas is heavier than air; methane gas is lighter than air. LP-Gas will settle to the lowest point, generally the floor of the motorhome. Methane gas will rise. The gas detector is also sensitive to other fumes such as hair spray, of which most contain butane as the propellant. Butane, like propane, is heavier than air and will settle to the floor level where it will be detected. When this occurs, reset the detector to stop the alert sound.

About the LP-Gas Detector:

It is important to be aware of the difference between a gas leak versus gas escaping from an unlit, open burner. Pure propane vapors from a leaking pipe or gas fitting are heavier than air and will build up their heaviest concentration at the leak and float down until they mix with air. Gas from open burners is intentionally mixed with air to induce burning and will dissipate into the air. When mixed with air, the gas becomes only marginally heavier than air and will expand outward. If a gas burner is left on, the area around the burner, range, and adjoining counter space will be combustible and can cause injury and damage if ignited. This condition will exist for an extended time period and eventually the gas will reach the detector's location and be detected.



NOTE: The LP detector only indicates the presence of propane gas at its sensor. Combustible levels of propane gas may be present in other areas. This detector is intended for the detection of propane gas ONLY.

The LP detector has not been tested to detect any other gas. However, other volatile gases (nuisance gases), most of them flammable in various concentrations, may cause the detector to alarm. Some products that may cause the detector to alarm are alcohol, liquor, kerosene, gasoline, deodorants, colognes, propellants used in spray cans and cleaning solvents. In some cases vapors from the glues and adhesives used in the manufacturing of the motorhome may also cause the detector to alarm for several months after the date of manufacture. If it is determined that the detector has false alarmed because of the above mentioned nuisance gases, reset the detector and air out the vehicle with fresh outside air.

Take precautions to be sure one of these nuisances has not masked an actual gas alarm condition. The detector draws less current than one instrument panel lamp. The detector will operate to detect gas until the battery is drained down to 7.0 volts. The detector must be supplied with a voltage higher than 7.0 volts for it to operate properly. If the power source is disconnected, or if the power is otherwise interrupted, the detector will not operate.

The LP gas leak detector has a self-check circuit which runs at all times while the detector is powered. In the event that the circuitry fails, a failure alarm will sound and the operating indicator will cease to light.

Upon first application of power the LED will flash yellow for three minutes while the detector is stabilizing. At the end of the start cycle the LED will turn Green, indicating full operation. If the detector senses unsafe levels of gas it will immediately sound an alarm. The gas detector operates on 12 Volt DC, with a current draw less than 1/10th of one amp.

Operation



CAUTION: The detector will not alarm during the three minute warm up cycle.

Press the TEST switch any time during the warm up cycle or while in normal operation. The LED should flash red and the alarm should sound. Release the switch. This is the only way the detector should be tested. The test feature checks full operation of the detector.

Testing



WARNING: Test the operation of this detector after the motorhome has been in storage, before each trip and at least once per week during use.

The red LED will flash and the alarm will sound whenever a dangerous level of propane or methane gas is detected. The detector will continue to alarm until the gas clears or the Test/Mute switch is pressed.

Alarm

Procedures To Take During An Alarm:

1. Turn off all gas appliances, (stove, heaters, furnace), extinguish all flames and smoking material. Evacuate, leave doors and windows open.
2. Turn off the propane tank valve.
3. Determine and repair the source of the leak. Seek professional help if necessary.



CAUTION: Do Not re-enter until the problem is corrected.

Potential Sources of LP Gas Leaks When Operating the Motorhome:

- Cooktop Burners
- Oven
- Furnace
- Refrigerator
- Water heater
- Defective Regulator
- Defective LP Gas Connection
- Portable Propane Powered Equipment

Alarm Mute:

Press the Test-Mute button when the detector is in alarm.

1. The red LED will continue flash and the alarm will beep every 30 seconds until the gas level has dropped to a safe level.
2. The LED will flash green until the end of the Mute cycle.
3. If dangerous gas levels return before the end of the Mute cycle, the alarm will beep four times and return to phase 1.
4. After two minutes the detector will return to normal operation (solid green) or resound the alarm if dangerous levels of gas remain in the area.

Fault Alarm:

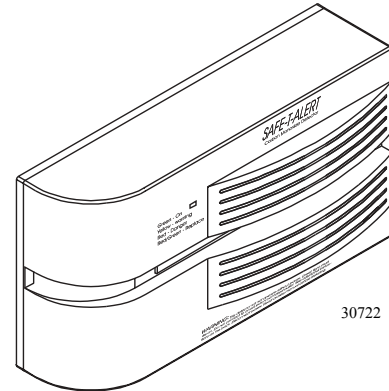
Should the microprocessor sense a fault in the gas detector, a fault alarm will sound twice every 15 seconds. The LED will alternately flash red to green and the MUTE switch will not respond to any command. The gas detector must be repaired or replaced.

-
1. Vacuum the dust off the detector cover weekly (more frequently in dusty locations) using the soft brush attachment of the vacuum.
 2. Do not spray cleaning agents or waxes directly onto the front panel. This action may damage the sensor, cause an alarm or cause a detector malfunction.

Cleaning

American National Standards Institute (ANSI) A119.2 - Fire & Life Safety 3-4.6 Carbon Monoxide Detectors states, " All RVs equipped with an internal combustion engine or deigned with features to accommodate future installation of an internal combustion engine and truck campers shall be equipped with a listed CO detector installed in accordance with its listing."

CARBON MONOXIDE DETECTOR



The motorhome is equipped with such a Carbon Monoxide detector. Everyone is at risk with Carbon Monoxide poisoning. Carbon Monoxide (CO) is a colorless, odorless and tasteless gas that binds with hemoglobin reducing the body's ability to absorb oxygen and carry oxygen to vital organs. Even low levels of CO have been known to cause brain and other vital organ damage in unborn infants, with no effect on the mother. When removed from exposure, the symptoms dissipate as Carbon Monoxide is expelled through the lungs. Level of contamination in the body reduces at half-life increments at approximately four-hour intervals. Treatment with Oxygen will quicken recovery time.

In cases of mild exposure, the symptoms may include: a slight headache, nausea, vomiting and fatigue. Some consider this a "Flu-Like Symptom." Symptoms for medium exposure may include a severe throbbing headache, drowsiness, confusion and fast heart rate. Extreme exposure can result in unconsciousness, convulsions, cardio-respiratory failure and death. Young children and household pets may be the first affected. Other highly sensitive people would include the elderly and people with lung or heart disease or anemia.

The CO detector is designed to detect the toxic CO Gas resulting from incomplete combustion of any fuel. This can be gasoline, propane, natural gas, oil, charcoal or wood. Anything that burns fuel such as engines, generators, furnaces, gas stoves or water heaters, produce CO gas. Consequently, it is uncommon for household smoke from cigarettes or normal cooking to cause the alarm to sound.



NOTE: Activation of this device indicates the presence of carbon monoxide (CO) which can be fatal. A concentration of above 100 PPM will cause a warning condition. Individuals with medical problems may consider using detection devices with lower carbon monoxide alarming capabilities. Prolonged exposure to the horn at a close distance may be harmful to hearing.

The CO detector is wired to both the house and chassis batteries, this allows a reliable and continuous protection by alerting the build up of potentially dangerous levels of CO. Once the unit is powered, it will run through a brief warm-up and self check prior to monitoring for CO gas. There are no switches that can accidentally be turned off. There is a simple test procedure that should be preformed to ensure the CO detector is functioning properly.



WARNING: If there is constant beeping and the red light is flashing, CO gas has been detected. Shut off appliances, coach engine, and water heater. Evacuate the coach and call the fire department. Have any problems corrected before restarting any appliances or the coach.

The detector is equipped with a self-cleaning CO sensor and requires a ten-minute initial warm-up period to clean the sensor element and achieve stabilization. During the warm-up period the green power light will flash ON and OFF. The green power light should be lit when the power is on. If the light is not lit, turn off the power and check all wire connections. If the power is on and the connections are correct, but the indicator still does not light, the detector should be returned for service. Do not attempt to fix the detector.

Operation

The indicator light displays a specific color to monitor, along with a matching sound pattern described as follows:

- ON or normal condition is indicated by GREEN. The CO detector has power and is sensing air for the presence of CO gas. The alarm horn will not sound.
- Flashing RED indicates low CO Alarm condition along with 4 beeps then OFF for 5 seconds. The alarm horn will sound and can be reset by the TEST/RESET button. The CO detector has detected the presence of 70 ppm.
- Steady Red indicates a CO ALARM condition. The detector has sensed the presence of levels over 100 ppm of carbon monoxide. The alarm horn will sound continuously until the RESET switch is reset.
- Alternating Red and Green indicates alarm malfunction.

Potential Sources of CO when operating the motorhome:

- Engine Exhaust
- Portable Space Heaters
- Gas Stoves and Ovens
- Defective Engine Exhaust System
- Portable Grills
- Camp Fires
- Generator Exhaust
- Portable Generators
- Other Motorhomes

When the alarm sounds, have the detector and the motorhome checked by an authorized service technician as soon as possible. Never disconnect a CO detector to silence an annoying alarm. Evacuate the motorhome immediately when the RED light is lit and the alarm sounds. Do a head count to check that all persons are accounted for. Call the nearest fire department and ask them to determine the source of the carbon monoxide. Do not re-enter the motorhome until it has been aired out and the problem corrected.

Testing

Test the carbon monoxide detector operation after the motorhome has been in storage, before each trip and at least once a week during use. Test the alarm by holding the TEST/RESET button in until the alarm sounds. The alarm will sound 4 beeps and the indicator lamp goes steady Red. Six seconds later the alarm will again beep 4 times and the indicator light goes steady Green.

Peak Level Memory:

The CO detector has the capability to remember the level of carbon monoxide that activated the alarm. Press the TEST/RESET button for less than one second and observe the visual and audible signals.

- One beep and a Green flash indicate memory is clear.
- Two beeps and two Red flashes indicate less than 100 ppm.
- Three beeps and three Red flashes indicate less than 200 ppm.
- Four beeps and four Red flashes indicate greater than 200 ppm.



NOTE: Memory is erased when power is disconnected for 15 seconds.

Cleaning

Use a vacuum cleaner to remove dust or any other buildup on the detector. Do not wash. Wipe the detector with a damp cloth and dry it with a towel. Do not open the detector for cleaning. Do not paint the detector. It is recommend that the carbon monoxide detector be replaced every 10 years.

Troubleshooting and Service

The CO detector has NO user service parts. If there is a problem with the detector refer to an authorized service center. DO NOT REMOVE POWER.



NOTE: Check the CO detector weekly and at the beginning and end of each trip.



91320 Coburg Industrial Way
Coburg, OR 97408

www.beavermotorcoaches.com

Warranty/Technical Support
Toll Free 1-800-344-6332