



Atwood Mobile Products LLC

Atwood Mobile Products LLC

1120 North Main Street Elkhart, IN 46614-3203

USA & Canada 1-866-869-3118

Internet: <http://www.atwoodmobile.com>

## Models LPCO USER'S MANUAL AND INSTALLATION INSTRUCTIONS



TESTED TO UL2034, UL1484 AND CSA 6.19

**For questions concerning your Alarm, please call our Customer Service at 1-866-869-3118**

**Please have the following information ready when calling:**

Alarm Model Number (located on the back of alarm):	Serial # C00211292
Alarm Assembly Number (located on the back of alarm):	33535 E
Date of Manufactured (located on the bottom of alarm):	10/16/14
Date of Purchase:	
Where Purchased:	

<b>CARBON MONOXIDE AWARENESS</b> .....	<b>3</b>
<b>LIQUEFIED PETROLEUM GAS AWARENESS</b> .....	<b>4</b>
<b>ACTIVE ALARM PROCEDURES</b> .....	<b>6</b>
<b>TESTING</b> .....	<b>8</b>
<b>MODEL DESCRIPTION</b> .....	<b>9</b>
<b>SPECIFICATIONS</b> .....	<b>9</b>
<b>POWER CONSERVATION MODE</b> .....	<b>10</b>
<b>ALARM OPERATION</b> .....	<b>10</b>
<b>Power Off Mode</b> .....	<b>10</b>
<b>Normal Gas Detection Mode</b> .....	<b>10</b>
<b>Alarm Active Mode</b> .....	<b>11</b>
<b>Alarm Test Mode</b> .....	<b>11</b>
<b>Alarm Reset / Stabilization Mode</b> .....	<b>11</b>
<b>Fault Mode</b> .....	<b>11</b>
<b>FUNCTIONS</b> .....	<b>12</b>
<b>INSTALLATION INSTRUCTIONS</b> .....	<b>13</b>
<b>WIRING</b> .....	<b>15</b>
<b>SURFACE MOUNTING BOX</b> .....	<b>16</b>
<b>Surface Mounting</b> .....	<b>17</b>
<b>Flush Mounting</b> .....	<b>18</b>
<b>AC Power Adapter Mounting</b> .....	<b>19</b>
<b>OPERATING INSTRUCTIONS</b> .....	<b>19</b>
<b>DETECTOR TEST</b> .....	<b>19</b>
<b>LP GAS DETECTION</b> .....	<b>19</b>
<b>POWER MANAGEMENT</b> .....	<b>20</b>
<b>Low Power Warning Mode</b> .....	<b>20</b>
<b>Power conservation Mode</b> .....	<b>21</b>
<b>Low Power Alarm Mode</b> .....	<b>21</b>
<b>Power Failure</b> .....	<b>21</b>
<b>End of Life</b> .....	<b>22</b>
<b>TROUBLESHOOTING QUICK-GUIDE</b> .....	<b>22</b>
<b>WARRANTY</b> .....	<b>25</b>

## READ ENTIRE MANUAL BEFORE USING THIS ALARM

Your new Atwood Carbon Monoxide and Propane (CO/LP) alarms are sophisticated instruments that has been carefully designed and tested to detect CO and LP build up in a residential or recreation vehicle environment.

Carbon Monoxide (CO) and Liquefied Petroleum (LP or Propane) gases can cause hazardous conditions when found in high concentrations. Both gases are known to be found in recreational vehicles and the proper detection of these gases provides a safe environment for the occupants of the vehicle.

## CARBON MONOXIDE AWARENESS

The following are the symptoms of Carbon Monoxide poisoning and must be discussed with all occupants of the vehicle

- Mild Exposure:** Slight headache, nausea, vomiting, fatigue ("Flue like symptoms).
- Medium Exposure:** Severe throbbing headache, drowsiness, confusion, fast heart rate.
- Extreme Exposure:** Unconsciousness, convulsions, heart and lung failure, brain damage, and death.

Many cases of reported CARBON MONOXIDE POISONING indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the building or calling for assistance. Young children and house hold pets are typically the first affected. This device does not provide warnings for all levels of CO. Individuals with certain medical conditions may consider using a warning device that provides both audible and visual signals for carbon monoxide concentrations below 30 ppm. Everyone is susceptible to the danger of CO, but experts agree that unborn babies, small children, pregnant women, senior citizens and people with heart or respiratory problems are at the highest risk for serious injury or death.

If you experience ANY symptoms of CO poisoning, consult your physician. Be aware that the following conditions can result in transient CO situations, such as:

1. Excessive spillage or reverse venting of fuel burning appliances caused by:
  - Outdoor ambient conditions such as wind direction and/or velocity, including high gusts of wind; heavy air in the vent pipes (cold/humid air with extended periods between cycles).
  - Negative pressure differential resulting from the use of exhaust fans.
  - Simultaneous operation of several fuel burning appliances competing for limited internal air.
  - Vent pipe connection vibrating loose from clothes dryers, furnaces, or water heaters.
  - Obstructions in or unconventional vent pipe designs which amplify the above situations.
2. Extended operation of un-vented fuel-burning devices (range, oven, fireplace, etc).
3. Temperature inversions which can trap exhaust gasses near the ground.
4. Car idling in an open or closed attached garage, or near a home.

#### LIQUEFIED PETROLEUM GAS AWARENESS

LP gas is commonly called Propane and is sold commercially as a suitable fuel in portable and permanent heating and cooking appliances.


It is important to detect LP gas due to its explosiveness at concentrated volumes. The lowest explosive limit for LP concentration is 21,000 parts per million (ppm). This detector was designed to alarm at 10% of this limit or 2100 ppm.

#### SAFETY ALERT SYMBOLS


Safety symbols alerting you to potential personal safety hazards. Obey all safety messages following these symbols.

 **WARNING**  
Avoid possible injury or death


 **CAUTION**  
Avoid possible injury and/or property damage

 **WARNING**

This product is intended for use in ordinary indoor locations of family living units. It is not designed to measure compliance with Occupational Safety and Health Administration (OSHA) commercial or industrial standards.

 **CAUTION**

This alarm will only indicate the presence of gas at the sensor. Gases may be present in other areas. Read this entire manual before using the alarm.

 **WARNING**

Actuation of your CO alarm indicates the presence of carbon monoxide (CO) which can KILL YOU.

## ACTIVE ALARM PROCEDURES

### IF ALARM SIGNAL SOUNDS:

#### 1. Operate Reset/silence button;

1. Immediately move to fresh air-outdoors or by an open door/window. Do a head count to check that all persons are accounted for. Do not reenter the premises nor move away from the open door/window until the emergency services responders arrive, the premises have been aired out, and your alarm returns to its normal condition?
2. Call your local Emergency Services Number or 911

( \_\_\_\_\_ )  
Fill in your local Fire Department number here

3. After following steps 1-3, if your alarm reactivates within a 24 hour period, repeat steps 1-3 and call a qualified appliance technician

( \_\_\_\_\_ )  
to investigate for sources of CO and LP from fuel burning equipment and appliances, and inspect for proper operation of this equipment. If problems are identified during this inspection, have equipment serviced immediately. Note any combustion equipment not inspected by technician consult the manufacturers instructions, or contact the manufacturers directly, for more information about CO and LP safety. Make sure that motor vehicles are not, or have not been operating in an enclosed area or in close proximity of other vehicles.

*Note: two self adhesive emergency contact tables are provided. The user must add telephone numbers for the local emergency service provider and for a qualified service technician. User must place one label next to the alarm. The other label must be placed near a source of fresh air where you plan to gather in the event the alarm indicates carbon monoxide presence.*



### WARNING

Test Alarm operation after vehicle has been in storage, before each trip, and at least once per week during use.



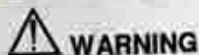
### WARNING

Activation of this device indicates the presence of LP gas, which can cause an explosion and/or fire. This normally indicates a leak in the LP gas piping or an LP gas appliance.

**WARNING:** If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- Evacuate all persons from vehicle.
- Shut off gas supply at gas container or source.
- Do not touch any electrical switch, or use any phone or radio in vehicle.
- Do not start vehicle's engine or electric generator.
- Contact nearest gas supplier or qualified Service Technician for repairs.
- If you cannot reach a gas supplier or qualified Service Technician, contact the nearest fire department.
- Do not run on gas supply until gas leak(s) has been repaired.

## TESTING



### WARNING

Test Detector operating after vehicle has been in storage, before each trip, and at least once per week during use.

*Note: Unit must be powered for three minutes before test can be performed.*

The Test/Rest button is used to verify proper alarm operating. Executing the test function sounds the alarm and lights up all LED's. The test will sound the alarm twice, with 4 "beeps" in 1 second followed by 5 seconds of silence.

By pressing the button, you can verify that the alarm sounds and that all visual indicators function properly. The alarm is internally monitored while powered to ensure proper operation and to detect faults.

### Important

- This detector will only indicate the presence of CO or LP gas at the sensor. Gases may be present in other areas.
- The detector is not suitable as a smoke or fire detector. Not suitable for installation in hazardous locations as defined in the National Electrical Code.

## MODEL DESCRIPTION

LP=Propane	CO=Carbon Monoxide	D=12Vdc	A=120Vac	O=OEM	R=Retail
------------	--------------------	---------	----------	-------	----------

OEM Package			Retail Package		
Model	Part No	Color	Model	Part No	Color
LPCO_DOW	36636	White	LPCO_DRW	36681	White
LPCO_DOB	31011	Black	LPCO_DRB	31012	Black
LPCO_AOW	36520	White	LPCO_ARW	36521	White
LPCO_AOB	31003	Black	LPCO_ARB	31004	Black
Surface Box	31128	Black	Surface Box	36589	White

## SPECIFICATIONS

	LP	CO
Alarm Level:	2100 ppm for 10 seconds	70 ppm for 60 to 240 minutes 150 ppm for 10 to 60 minutes 400 ppm for 4 to 15 minutes
Audio Alarm	Min. 85 dB at 10 Feet	
Visual Alarm	LP blinking red LED and Chirping	CO blinking red LED and Chirping
Malfunction	Red Fault LED on and chirping sound	
Sensor End of Life Alarm	Blinking red LED's and Chirping	
Dimensions	3-9/16" H X 3-7/16" W	
Supply Voltage Thresholds	9 to 18 VDC (13.5 V nominal)	
Supply Current (Max)	75 am	
Supply Current (Typical)	40 mA	
IAS Tested @	67% to 133% of supply voltage	
Current Draw	Typical 70 mA - Alarm 100 mA	

## POWER CONSERVATION MODE

Current Draw	10 mA
Temperature	-40° to 70°C (-40° to 158°F)
Storage Temperature	-40° to 70°C (-40° to 158°F)
Humidity	15 to 90%
Warranty	Limited, 2 year
Alarm Lifetime	7 years (powered operation)
Standards	ETL tested to UL 2034 & UL 1484 Residential and RV and Complies with CSA 6.19

### For Service and Information Contact

Atwood Mobile Products LLC, 1874 South Pioneer Road Salt Lake City, Utah 84104-4226  
Consumer Service Department, 1120 North Main, Elkhart, IN 46514 USA.  
Phone: 1-866-869-3118

### ALARM OPERATION

The alarm includes four LED indicators, an LP, CO and LPCO oscillating multi-tone audible alarms, and one Test/Reset button that provide interaction and feed back with your alarm. The indicators allow you to troubleshoot your alarm and to determine the proper actions to take. The visual indicators are labeled Power, Fault, Carbon Monoxide, and Propane.

The alarm operates in six separate modes that will be identified in this section.

#### Power Off Mode

This mode indicates that there is insufficient power provided to the alarm. The indicators and button will not function in this mode. Sufficient power must be provided to the alarm to exit this mode.

#### Normal Gas Detection Mode

This mode indicates that gas concentrations are continuously monitored. It also indicates that gas concentrations are at safe levels. In this mode the Power indicator will be lit, and all other indicators will not be active. The Test function for the Test/Reset button will be active.

#### Alarm Active Mode

This mode indicates that one or more gas concentrations have achieved unsafe levels. In this mode the Power indicator will be lit. In the case that the CO concentration is unsafe the Carbon Monoxide indicator will be lit. In the case that the LP concentration is unsafe the Propane indicator will be lit. In this mode the audible indicator will signal an alarm, and the Reset function of the Test/Reset button will be active. This mode will be exited automatically if the CO concentration falls to a safe level for an extended period of time and LP concentrations falls below 500 ppm for greater than 10 seconds.

#### Alarm Test Mode

This mode indicates that the Test function of the Test/Reset button was initiated. In this mode, all visual indicators will be lit, and the audible indicator will signal an alarm. The test/Reset button will not function during this mode. This mode will be exited automatically within 10 seconds.

#### Alarm Reset / Stabilization Mode

This mode indicates that the alarm is stabilizing for the first 3 minutes after power-up or the first 6 minutes after the Reset Function was initiated. In this mode the Power indicator will be lit, and the reset alarm's indicator will be flashing. The other visual indicators, the audible indicator, and the Test/Reset button function will be off. This mode will be exited if the previously inactive alarm is triggered. If gas concentrations are still high after the 6 minutes, the previous alarm will reactivate.

#### Fault Mode

This mode indicates that a fault has been detected that compromises some alarm function. If a fault is detected on only one of the sensors, the other sensor would function normally. The table below lists the indicator actions and the corresponding alarm status. This mode will be exited automatically when the fault is cleared. If the fault persists, the alarm is not functioning properly and must be replaced to ensure your safety in the area.

### End of Life Mode

The Detector will operate in end-of-life mode after the Detector has been powered for 7 years +/- 128 days. This represents the operating life of the sensors used to detect CO and LP gas.

After 7 years, the sensors are no longer reliable and the Detector must be replaced. Once end-of-life mode has been entered, it is permanent, even after a power out cycle. If the reset/test button is pressed during end-of-life mode, the audible alarm will be silenced for 48 hours before being automatically reactivated. The power visual indicator will be on and the CO and/or LP visual indicators will be flashing. The audible alarm will be sounding per table below.

*Note: two self adhesive emergency contact labels are provided. The user must add telephone numbers for the local emergency service provider and for a qualified service technician. User must place one label next to the alarm. The other label must be placed near a source of fresh air where you plan to gather in the event the alarm indicates carbon monoxide presence.*

### FUNCTIONS

Feature	Function	Status
Power LED	Flashing	Power supply fault
	On	Power supply OK
Propane LED	Flashing	Propane alarm disabled
	Off	Propane alarm OK
Carbon Monoxide LED	Flashing	Carbon Monoxide alarm disabled
	Off	Carbon Monoxide alarm OK
Fault LED	On	Fault active
Audible Indicator	Chirp	Fault Active
	4 Chirps	CO Alarm Active
	6 Chirps	LP Alarm Active
	4 & 6 Chirps	Co-LP Combining multi-tone Alarm Active
End of life	Chirp	Sensor failure
	ON	Both CO & LP LED's steady on

Figure 1: Fault Indicator Actions

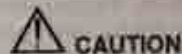
**IMPORTANT** – If this alarm does not test properly return it immediately for repair or replacement.

**The visual indicators have two distinct functions: On and Flashing.**

The "On" function is indicated by constant solid brightness of the LED. The "Flashing" function is indicated by the LED blinking once every second.

**The audible indicator has two distinct functions: Alarm and Fault.**

In the "Alarm" function, for the CO the alarm will sound four "beeps" in 1 second followed by 5 seconds of silence, after 4 minutes of alarming, silence will last for 1 minute. For the LP the alarm will sound six "beeps" in 1 second continuously. In the "fault" function, the alarm will last for 1 minute. In the "Fault" function, the alarm will sound a "chirp" once every 40 seconds until the fault is cleared.



CAUTION

Installation should be performed by a qualified technician

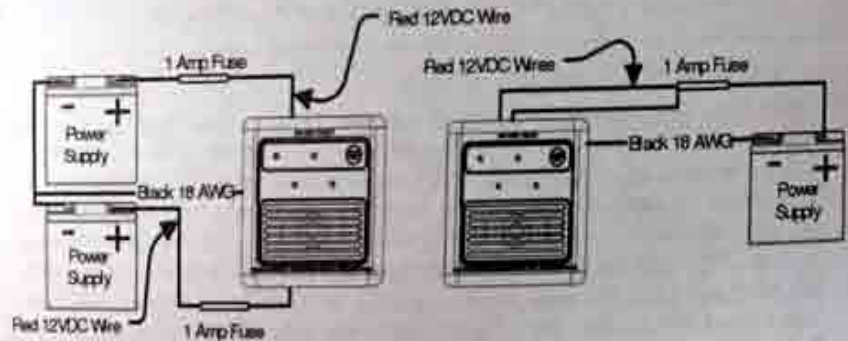
### INSTALLATION INSTRUCTIONS

- LP/CO units when possible should be mounted lower to detect LP gas first due to its explosive nature and CO will be detected through air current circulation.
- Select a location as close as possible to appliances that could be potential sources of LP gas leaks and where the initial concentration may be greatest.
- **DO NOT INSTALL** next to doors or windows that may dilute the concentration of any LP gas presents in the environment and preclude a timely alarm signal.
- **DO NOT INSTALL** the detector in a closet or in a location that could be come obstructed by a curtain, hanging clothes or any other objects.
- **DO NOT LOCATE** detector where it could be exposed to splashes of water or grease or where it could be damaged by impact with moving objects (i.e.

furniture, feet, etc.)

- **DO NOT INSTALL** on a wall switch controlled by a power line or ground fault circuit.
- Usually you will find more than one suitable location that will also provide ease of viewing and connection to power.
- **DO NOT INSTALL** in any location within 5 feet (1.5m) of any cooking appliance.
- Never use detergents or solvents to clean the alarm chemicals can permanently damage or temporarily contaminate the sensor.
- Avoid spraying air freshener, hair spray, paint or other aerosols near the alarm.
- The following is a list of substances that at high levels can affect the sensor and cause an alarm.

Methane, propane, iso-butane, ethylene, ethanol, alcohol, carbon monoxide, isopropylene, benzene, toluene, ethyl acetate, hydrogen, hydrogen sulfide, sulfur dioxides.



Dual Power Source Wiring

Single Power Source Wiring

## WIRING

- Before routing the wires, disconnect the 12 VDC power supply to avoid shorting. Make sure that the power connections are made to a properly fused circuit (15 amp maximum) 1 amp fuse is recommended for single or multiple detector installation. Can be fused through a distribution panel or power supply box.
- Connection to a **Master Storage Switch** is acceptable. The alarm will be off along with all other 12 volt equipment when the storage switch is turned to the off position. **DO NOT USE THE RV WHEN THE STORAGE SWITCH IS IN USE.**
- All connections must be in accordance with the National Electrical Code in the United States and the Canadian Electric Code in Canada. All connection must use approved wiring and connectors of an appropriate size see wiring diagram labeled, "Figure A".
- Some models are hard wired with a 110 AC adapter allowing the unit to be plug directly into a 110 AC wall outlet as shown.

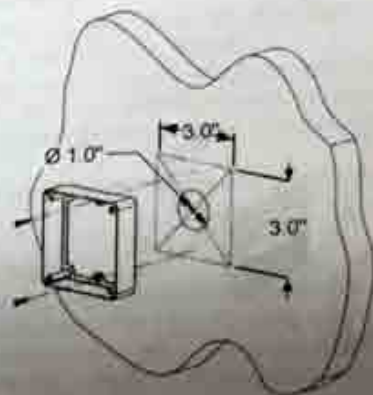




## SURFACE MOUNTING BOX

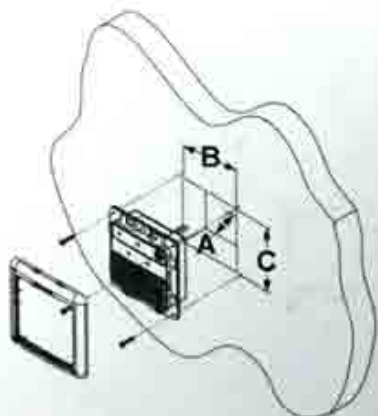
- A detachable mounting box allows the unit to be mounted as a surface installation. If desired you can purchase the optional mounting box for surface installation by ordering part no. 31128 black or 36689 white part.
- Mounting box is attached to the surface location where the alarm is to be mounted with two screws see instructions below.
- To remove cover flange from alarm insert a flat blade screw driver into the middle of the slot at the top of the flange and pry down to lift the flange off the alarm.
- To install the mounting box to the alarm place the alarm inside the box and fasten in place with the four screws provided.
- Reinstall the cover flange by placing the flange against the alarm and snapping it into place.

## Surface Mounting



1. Mark on the desired mounting surface a box approximately 3" inch wide by 3" high draw and cut hole.
2. Route power leads to the opening and connect wires to the detector per the wiring diagrams.
3. Remove cover flange as describe above in surface mounting box section.
4. Center and mount the base over the outline done in step 1. with two screws provide through the two holes in the box.
5. Snap the cover onto the base.
6. Verify that the LED lights(s) align within the cutouts of the face.

## Flush Mounting



1. Verify that there is a minimum of (A) 1-1/2" inches of free space behind the wall.
2. Mark on the desired mounting surface a box approximately (B) 3-1/2" inch wide by (C) 3-5/8" high and cutout.
3. Route power leads to the opening and connect wire to the detector per the wiring diagrams.
4. Install the detector and excess wiring through the opening until mounting flange is flush to the wall.
5. Mount the unit using the 4 screws provided one in each corner of the flange.

## AC Power Adapter Mounting

- Power supply can be plugged into a 120 VAC wall outlet either on the surface or behind a wall in a cabinet if so desired.
1. Cut a hole in the wall large enough to put the adapter through to the outlet. Put the adapter through the mounting box before screwing the box onto the wall.
  2. Following steps outlined above for either surface or flush mounting of the alarm.
  3. Adapter wire is run underneath the mounting box when install a surface mounted alarm.

## OPERATING INSTRUCTIONS

Applying power to the detector will cause the detector to display a Power green LED light **Warm Up Operation** - The LP LED light will flash green every 8 seconds for the first 3 minutes indicating the unit is going through normal warm and check functions. **Normal Operation** - Detector displays a solid green light with no other lights on.

## DETECTOR TEST

1. Press "TEST" button until alarm sounds; then release the "TEST" button.
2. The detector will sound three times.
3. The LED will flash red; then return to normal operation and display a flashing green LED every 8 seconds.
4. This test must be carried out not less than once per week to ensure proper operation of the detector.

## LP GAS DETECTION

Whenever the measured concentration of LP gas exceeds 2000 ppm, the detector

will provide a visual and audible alarm by sounding the buzzer and flashing the LED red. The buzzer may be temporarily silenced by pressing the test button. However, until the measured concentration is reduced to a safe level, the alarm will sound again within 4 minutes.

### **POWER MANAGEMENT**

The operating voltage for the detector is 8 VDC to 16 VDC. In these conditions, the unit will meet the specifications of the UL 1484 standard. The actual voltage applied to the detector in a recreational vehicle may drop below the minimum 8 VDC. The Atwood Detector is designed to provide the user with a Low Voltage Warning before reaching the level and to provide additional distinct, clear warnings and alarms after the 8 VDC level is reached. However, if available power supplied to the unit is below the operating voltage of 8 VDC, the detectors will not detect gas or provide you protection against dangerous levels of LP or CO.

The following descriptions of operational modes will provide the user with an understanding of how the detector performs to conserve available battery power and alert the user to non-operating due to battery draw-down.

#### **Low Power Warning Mode**

When the available voltage is between 10 VDC and 8 VDC, the LED will flash orange. In this mode, the detector is still fully operational; and capable of both sensing and providing an alarm to dangerous concentrations of LP gas; and is providing the user a warning that the available power is nearing the bottom limit of the operating voltage range. Steps should be taken to maintain available power at an acceptable level.

#### **Power conservation Mode:**

When the available power is between 8 VDC and 6 VDC, the microprocessor is programmed to place the detector into Power Conservation Mode. In this mode the detector is capable of neither sensing nor providing an alarm to dangerous concentrations of LP gas. The detector conserves the remaining available power by reducing its power consumption to approximately 10 milliamps (10mA). In this mode, the detector will emit 3 quick "chirps" once and flash RED/ORANGE repeatedly every 3 minutes.

#### **Low Power Alarm Mode:**

When the available power falls below 6 VDC, the LED will display a steady RED LED. This condition will remain until power is depleted or restored to a level exceeding 10 VDC. Again, in this mode the detector is neither sensing nor providing an alarm to dangerous concentrations of LP gas. If after restoring available power to a level in excess of 10 VDC, the detector stays in this steady RED LED mode (even after pressing the TEST button), return the detector to the Atwood Service Center. This is an indication of possible microprocessor failure.

The power management functions of the Atwood Detector are designed to make the most efficient use of available power and to provide the user with the maximum protection through distinct warnings and alarms.

#### **Power Failure**

If no power is applied to the unit or there is a failure of power circuits, there will be no identification from the LED. If there is no indication from the LED, but the audible alarm sounds when the TEST button is pressed, then the LED is defective and the user must contact the Atwood Service Center.



## WARNING

Actuation of end of life of alarm indicates the alarm is non functioning and will not detect the presence of carbon monoxide (CO) or LP gases which can **KILL YOU**.

### End of Life

Unit is designed to give maximum life of sensors under normal conditions. This is seven years from date of installation of unit. A sticker has been provided to recorded this information and should be placed next to the unit were it can be viewed. At the end of life the unit will give two quick "chirps" and both the LP and CO LED's will turn red. This state will continue until unit is replaced. If the reset/test button is pressed during end-of-life mode, the audible alarm will be silenced for 48 hours before being reactivated. The lamps states will remain unchanged while the audible alarm is silenced for this period at the end of the 48 hours the audible alarm will be turned and the alarm will remain on and can't be silenced both LED's will remain on. The alarm in this condition will not sense either LP or CO gases. **YOU MUST REPLACE ALARM** it is not field repairable.

### TROUBLESHOOTING QUICK-GUIDE

Use this chart to determine in which mode the detector is executing. Match the detector to the state of the indicator on the left to narrow down the possible operating modes.

POWER VISUAL INDICATOR	DETECTOR MODE
OFF	Detector power supply voltage is too low to operate
FLASHING	Detector power supply voltage is too high or too low
ON	Detector power supply voltage is ok
CARBON MONOXIDE VISUAL INDICATOR	DETECTOR MODE
OFF	<b>CO alarm is inactive:</b> <ul style="list-style-type: none"><li>• Power Off</li><li>• Normal Gas Detection</li><li>• Fault</li></ul>
FLASHING	<b>CO alarm is disabled:</b> <ul style="list-style-type: none"><li>• Alarm Rest/Stabilization</li><li>• Fault Mode</li></ul>
ON	<b>CO alarm is activated:</b> <ul style="list-style-type: none"><li>• Alarm Active</li><li>• Alarm Test</li></ul>
PROPANE VISUAL INDICATOR	DETECTOR MODE
OFF	<b>LP alarm is inactive:</b> <ul style="list-style-type: none"><li>• Power Off</li><li>• Normal Gas detection</li><li>• Fault</li></ul>

FLASHING	<b>LP alarm is disabled:</b> <ul style="list-style-type: none"> <li>• Alarm Reset/Stabilization</li> <li>• Fault</li> </ul>
ON	<b>LP alarm is activated:</b> <ul style="list-style-type: none"> <li>• Alarm Active</li> <li>• Alarm Test</li> </ul>
<b>FAULT VISUAL INDICATOR</b>	<b>DETECTOR MODE</b>
OFF	<b>No fault is detected:</b> <ul style="list-style-type: none"> <li>• Power Off</li> <li>• Normal Gas Detection</li> <li>• Alarm Active</li> <li>• Alarm Reset/Stabilization</li> </ul>
ON	<b>Fault Has been detected:</b> <ul style="list-style-type: none"> <li>• Alarm Test</li> <li>• Fault</li> </ul>
<b>AUDIBLE INDICATOR</b>	<b>DETECTOR MODE</b>
OFF	<b>No alarm is active and no fault is detected</b> <ul style="list-style-type: none"> <li>• Power Off</li> <li>• Normal Gas Detection</li> <li>• Alarm Reset/Stabilization</li> </ul>
ALARM	<b>One or both alarms are active:</b> <ul style="list-style-type: none"> <li>• Alarm Active</li> <li>• Alarm Test</li> </ul>
FAULT	<b>Fault has been detected:</b> <ul style="list-style-type: none"> <li>• Fault (chirp)</li> </ul>

## WARRANTY

### Atwood Mobile Products LIMITED WARRANTY

Atwood Mobile Products, LLC warrants to the original owner and subject to the below mentioned conditions, that this hydro flame™ product will be free of defects in material or workmanship for a period of two years from the original date of purchase. Atwood's liability hereunder is limited to the replacement of the product, repair of the product, or replacement of the product with a reconditioned product at the discretion of the manufacturer. This warranty is void if the product has been damaged by accident, unreasonable use, neglect, tampering or other cause not arising from defects in material workmanship. This warranty extends to the original owner of the product only and is subject to the following conditions:

1. For two years from the date of purchase, Atwood will repair or replace any part defective in material or workmanship. This warranty includes reasonable labor charges required to remove and replace the part. Service calls to customer's location are not considered part of these charges and are, therefore, the responsibility of the owner.
2. In the event of a warranty claim, the owner must contact, in advance, either an authorized Atwood Service Center or the Atwood Service Department. Warranty claim service must be performed at an authorized Atwood Service Center (a list will be provided at no charge) or an approved by the Consumer Service Department, 1120 North Main, Elkhart, IN 46514 USA. Phone: 1-866-869-3118.
3. RETURN PARTS MUST BE SHIPPED TO ATWOOD "PREPAID". Credit for shipping costs will be included with the warranty claim. The defective parts become the property of Atwood Mobile Products, LLC and must be returned.

to the **Atwood Mobile Products, Quality Assurance Dept., Salt Lake City, Operations 1874 South Pioneer Road, Salt Lake City, Utah 84104 USA.**

4. This warranty applies only if the unit is installed according to the installation instructions provided and complies with local and state codes.
5. The warranty period on replacement parts is the unused portion of the original warranty period.
6. Damage or failure resulting from misuse (including failure to seek proper repair service). Misapplication, alternations, water damage, freezing or not using genuine Atwood parts are the owner's responsibility.
7. Atwood does not assume responsibility for any loss of use of vehicle, loss of time, inconvenience, expense for gasoline, telephone, travel, lodging, loss or damage to personal property or revenues. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.
8. Any implied warranties are limited to (2) two years. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from stat to state.
9. Replacement parts purchased outside of the original furnace warranty carry a 90 day warranty. This includes the part at no charge and reasonable labor charges to replace it.

This Gas Detector is designed for use in recreation vehicles for warning of LP or CO gases. Any other use, unless authorized in writing by the Atwood Engineering Department, voids this warranty

Atwood Mobile Products LLC