

# MTI INDUSTRIES

## PROPANE GAS ALARM

### MODELS 30-441-P and 30-442-P

## USER'S MANUAL

**IMPORTANT**  
**PLEASE READ CAREFULLY**  
 This manual contains important information. Purchasers who install this unit for use by others must leave this manual with the owner.  
**Do not throw out.**



Manual #304298-7  
 SINGLE STATION PROPANE ALARM SUITABLE  
 FOR USE IN RECREATIONAL VEHICLES

FILE NO. E151570

**IMPORTANT:** Always follow the operation and safety instructions of the gas appliance manufacturer.



**CONNECT ONLY TO WIRING THAT CANNOT BE TURNED OFF BY A WALL SWITCH OR GROUND FAULT PROTECTOR.**

**IMPORTANT:** Failure to follow the installation instructions may void the warranty.

### SPECIAL FEATURES OF THE MTI INDUSTRIES™ GAS ALARMS

This MTI Industries™ propane gas alarm is listed by Underwriters Laboratories, Inc. for use in recreational vehicles. Other explosive gases detected but not tested by Underwriters Laboratories include Acetone, Alcohol, Butane, Gasoline all of which you may have in your Trailer, Truck Camper, Van Camper or Motorhome.

When dangerous levels of propane gas (< 25% LEL) are detected the alarm signal will activate. A reset/mute circuit can be activated to temporarily silence the alarm while you ventilate.

RECOMMENDED WIRE GAUGE.....14 GA.  
 POWER SUPPLY.....12 vDC  
 WIRE COLOR CODE:           RED SUPPLY (+)  
   BLACK GROUND (-)  
 FUSED CIRCUIT MAXIMUM.....15 AMP



### LIMITATIONS OF PROPANE GAS ALARMS

**THIS UNIT will not work without power.** Examples causing no power are: Cut lead wires, faulty circuit connection, a blown or missing fuse, improper supply (+) or ground (-) connections.

**This alarm will only indicate the presence of propane gas at the sensor. Explosive gas may be present in other areas. If you smell unusual odors you may have a gas leak. Immediately call a local propane gas supplier or fire department to check for possible leaks.**

This alarm may not be heard. **The alarm loudness meets or exceeds regulatory standards. However, if this alarm is in remote locations or behind closed doors the alarm may not be heard. Persons who are hard of hearing may not hear the alarm.**

**This alarm is not a smoke/fire alarm. It is also not a carbon monoxide alarm.**

This alarm is not suitable for installation in hazardous areas as defined in the National Electrical Code.

#### HOW TO TAKE CARE OF YOUR ALARM

To keep your alarm in good working order, you must:

- **Test the alarm weekly.** (See “TEST PROCEDURE”)
- **Do not block or cover** the alarm with any object that can prevent a gas leak from reaching the sensor.
- **Observe the color of the indicator light** on the front of the unit regularly. (See “Operating Instructions”)
- **Vacuum the dust off the alarm cover weekly,** (more frequently in dusty locations), using the soft brush attachment of your vacuum.
- **Clean the alarm cover weekly.** Hand wash using a damp cloth, or paper towel. Dry with a soft cloth.
- **DO NOT SPRAY CLEANING AGENTS OR WAXES** directly onto the front panel. This action may damage the sensor, cause an alarm or cause an alarm malfunction.

#### WHERE TO INSTALL GAS ALARMS

This alarm is UL® listed for installation in recreational vehicles. Install this alarm near sources of a potential gas leak. Some potential sources are a furnace, water heater, stove or oven. If potential sources of a gas leak

are in separated areas, MTI recommends installing an alarm in each area. See **Figure 1 and 2.**

**CAUTION: Propane** is heavier than air. For propane gas detection, install this alarm from 4 to 20 inches off the floor.



**WHERE NOT TO INSTALL THIS GAS ALARM.** See **Figure 3.**

- **BEHIND FURNITURE, DRAPES, IN CLOSETS OR AREAS THAT WILL BLOCK AIR FLOW TO THE ALARM.**
- **WITHIN 12 INCHES OF EXTERIOR DOORS, WINDOWS, HEATING OR RETURN VENTS, OR OTHER DRAFTY AREAS.**
- **IN OR ON OUTSIDE WALLS**
- **TO A WALL SWITCH CONTROLLED POWER LINE, GROUND FAULT CIRCUIT OR CIRCUIT BREAKER.** See **Master Storage Switch on front Panel**

**NOTE:** Older homes and RVs may have little or no insulation and therefore are more drafty. Carefully consider mounting locations.

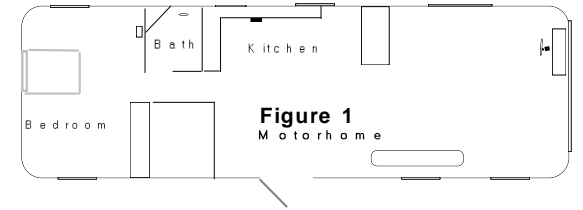
#### INSTALLATION INSTRUCTIONS

**Power Supply 12 vDC.** Connect the alarm to a properly fused circuit. All connections must be in accordance with the National Electrical Code.

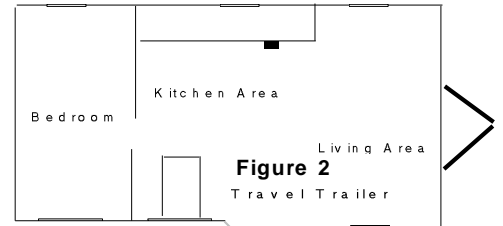
**CAUTION: ONLY USE UL® APPROVED CONNECTORS. DISCONNECT POWER UNTIL THE INSTALLATION IS COMPLETE**

**30-441/442-P:** REFER TO (“WHERE TO AND NOT TO INSTALL GAS ALARM”) connect the RED (+) power lead to the fused circuit. Connect the BLACK lead to Ground (-). Fasten the unit to the wall using the two screw holes located on the ends of the case. Reconnect the power supply.

**30-442:** REFER TO (“WHERE TO AND NOT TO INSTALL GAS ALARM”). This model requires a 1” clearance to recess the case. Cut a 5 3/8” W x 2” H hole. Connect the RED (+) power lead to the fused circuit. Connect the BLACK lead to Ground (-). Fasten the unit to the wall using the two screw holes located on the ends of the case. Reconnect the power supply.

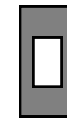


■ Alarm Location Minimum Protection

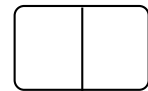


■ Alarm Location Minimum Protection

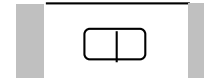
#### DO NOT INSTALL Figure 3



Do not install within 12" of a door



Do not install within 12" of a window that can open



Do Not install behind drapes or furniture



Do not install within 12" of vents

#### OPERATION

**WARNING:** This alarm cannot detect propane gas or sound the alarm for two minutes after it has been turned on.

**POWER ON:** When powered the LED color will be Green (Operational).

## TESTING

**⚠ WARNING: TEST THE OPERATION OF THIS ALARM AFTER THE RECREATIONAL VEHICLE HAS BEEN IN STORAGE, BEFORE EACH TRIP AND AT LEAST ONCE PER WEEK DURING USE.**

**WARNING: THE TEST BUTTON ONLY TESTS THE ALARM CIRCUIT, NOT THE SENSOR. YOU MAY USE PROPANE OR BUTANE GAS TO TEST THE SENSOR. REPLACE THE ALARM AFTER 5 YEARS.**

Simply press the Test/Mute switch at any time the alarm is powered. The LED should turn RED and the alarm should sound. Release the switch.

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

### ALARM SIGNAL

The Green LED will turn Red and the audible signal will activate whenever the level of propane gas exceeds the alarm threshold. The unit will continue to alarm until the gas clears or the Mute switch is pressed. See (Procedures To Take During An Alarm and Alarm Signal Mute sections)

### ALARM SIGNAL MUTE

Press the TEST-MUTE button when the detector is in alarm. 1. The audible alarm signal will stop, 2. the RED Alarm LED will remain on until the gas has dropped below the alarm point at which time the LED will turn Green, 3. If dangerous gas levels remain after the end of the Mute cycle (about 90 seconds) the alarm will re-activate.

### MALFUNCTION ALARM

A fault in the sensors operation will activate the malfunction alarm. The LED will turn Yellow and the sounder activate.

**IMPORTANT:** In the event of a malfunction alarm immediately remove the alarm and return it for repair or replacement. **Do not use your RV without a working Gas Alarm installed.**

### LOW POWER OPERATION

This alarm will operate normally down to 8 vDC. Do not operate this alarm below 8 vDC.

## End of Life Signal –Sensor has a 5 Year Service Life

All 30-441/442-P models include an End of Life (EOL) Signal indicating the sensor has reached the end of its service life and you must replace the alarm. The signal is the LED flashing RED RED GREEN GREEN with a beep every 25-30 seconds. The EOL Signal may be reset by pushing TEST / RESET button on the alarm. This will reset the EOL Signal for a period of 72 hours (3 days) for a total of up to 30 days. After 30 days the signal cannot be reset and the alarm must be replaced. DO NOT DISCONNECT THE ALARM UNTIL YOU HAVE A REPLACEMENT ALARM AVAILABLE TO INSTALL.

### PROCEDURES TO TAKE DURING AN ALARM

1. **TURN OFF ALL GAS APPLIANCES, (STOVE, HEATERS, FURNACE), EXTINGUISH ALL FLAMES AND SMOKING MATERIAL. EVACUATE THE UNIT, 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.**

### TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE AND SOLUTION
<b>LED OFF CONNECTION</b>	1. FAULTY WIRE 2. REVERSE POLARITY 3. BAD OR MISSING FUSE 4. DEAD BATTERY
<b>NO SOUND IN TEST</b>	1. RETURN IMMEDIATELY
<b>NO RED LED IN TEST</b>	1. RETURN IMMEDIATELY
<b>ALARMS AFTER WARM UP WITH OUT GAS PRESENT</b>	1. CONTAMINATED SENSOR PRESS TEST MUTE SWITCH AND WAIT 90 SECONDS
<b>AUDIBLE ALARM WITH YELLOW LED NO RESET</b>	1. RETURN IMMEDIATELY

### SPECIFICATIONS

POWER SUPPLY 12 vDC  
OPERATIONAL VOLTAGE 8-16 vDC  
CURRENT DRAW 90 mA @ 12 vDC

OPERATIONAL TEMPERATURE  
-31° F to 150° F  
-35° C to 66° C

RELATIVE HUMIDITY 15% to 93%

AUDIBLE OUTPUT 85 dB @ 10 feet

VISUAL OPERATIONAL SIGNAL GREEN  
VISUAL ALARM SIGNAL RED  
VISUAL MALFUNCTION SIGNAL YELLOW

ALARM TRIGGER < 25% of the LEL of Propane

CASE DIMENSIONS  
30-441 Surface 6" W x 1 7/8" H x 1 1/4" D  
30-442 Flush 6 3/8" W x 2 7/8" H x 1" D

CASE MATERIAL Geon 3700  
FLAME RATING 94-5VA

WARRANTY 1 Year Limited

TESTING LABORATORY Underwriters Laboratories

STANDARD ANSI/UL1484, Fourth Edition

### OWNERS REPLACEMENT RECORD

Replace this SAFE-T-ALERT™ propane alarm within 5 years, of the production date on the back of the alarm.

**Production**

**Date** \_\_\_\_\_

**Replace Date**

\_\_\_\_\_

**Installer** \_\_\_\_\_

**NOTE:** The replacement date indicates the date beyond which the device may no longer detect accurately. The alarm should be replaced immediately.

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## LED AND SOUNDER SIGNALS

OPERATION	AUDIBLE SIGNAL	VISUAL SIGNAL
NORMAL	NONE	STEADY GREEN
PROPANE ALARM	CONSTANT	FLASHING RED
ALARM MALFUNCTION	BEEP" EVERY 30 SECONDS	ALTERNATING RED/GREEN
END OF LIFE	BEEPS EVERY 25-30 SECONDS	FLASHING RED RED GREEN GREEN

### LIMITED WARRANTY

#### LIMITED PRODUCTS WARRANTY

**MTI INDUSTRIES, INC.** Warrants to the original purchaser that this alarm will be free from defects of material or workmanship for a period of one (1) year. If defective in original materials or workmanship and returned, delivery costs prepaid, MTI INDUSTRIES, INC., will repair or replace this product free of charge.

#### LIMITS OF WARRANTY

Repair or replacement is your exclusive remedy under this limited warranty or any other warranty (including any implied warranty of merchantability for a particular purpose). Any and all implied warranties or merchantability or fitness for a particular purpose is limited to the warranty period from the original date of purchase. MTI INDUSTRIES, INC., its dealers and distributors shall in no case be responsible or in any way liable for any incidental or consequential damages for any reason. Some states do not allow the limitation or exclusion of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. This warranty gives you specific rights, and you may also have other rights that may vary from state to state.

#### WARRANTY RETURN POLICY

**Warning-opening this product for any reason voids the warranty. There are no user serviceable parts in the case.** This alarm requires an authorization number (RA) for repair or replacement. Call MTI for a RA number. Pack the alarm carefully in a padded container. Include the RA number, an explanation of the problem, the original dated sales receipt, and your return address. Send, shipping prepaid, to: MTI Industries, Inc. 31632 N. Ellis Drive Bldg. 301 Volo, IL 60073 Customer Service Number: 800-383-0269 e-Mail: [info@mtiindustries.com](mailto:info@mtiindustries.com) Web: [www.Safe-T-Alert.com](http://www.Safe-T-Alert.com)