



DESIGNED AND  
MANUFACTURED  
IN ENGLAND

# ***GAS MONITOR***

## ***USER INSTRUCTIONS***



BY

# **NASA→**



NASA MARINE LTD  
BOULTON ROAD  
STEVENAGE  
HERTS SG1 4QG  
(01438) 354033





# **GAS MONITOR USER INSTRUCTIONS**

## **INTRODUCTION**

The Nasa gas monitor system is specifically designed to detect the presence of LPG gasses (Propane, Butane etc.) In a marine environment and give a warning before concentrations become dangerous. The system is also able to detect faults in the interconnecting cables and in the sensor element heater.

The system consists of the following:-

- (1) A monitor unit with two tone alarm, LEDs to register status and an alarm cancel button.
- (2) A splash proof sensor unit with 5 metres of cable and a test facility

## **INSTALLING THE MONITOR.**

The monitor is not waterproof and is designed for cabin mounting. Screw the mounting cradle in a suitable position and mount the monitor in the cradle using the thumb screws supplied. Plug the 12 volt power cable into the back of the unit and connect to a suitable, permanent power supply.

## INSTALLING THE SENSOR.

LPG is heavier than air so will find the lowest level in the boat. Mount the sensor as low as possible (using the velcro strips provided.) But ensure it does not get immersed in water. It is important that the sensor is mounted the correct way up with the front face either vertical or facing down. Do not mount with the front face pointing up or water will collect on the front grill. This will interfere with the gas permeable membrane and could result in damage. Run the sensor cable back to the monitor and plug it into the connector on the rear. If it is necessary to cut the cable during installation then reconnect the red wire, the blue wire and the screen wire using a terminal block and protect any joints from water ingress.

## OPERATION.

When power is first connected the unit will bleep and then issue a series of clicks whilst flashing the red and green LEDs. This will continue until the sensor element has purged itself of contaminants and reached operational temperature. When the clicks stop the green LED will flash briefly every second. The unit is now operational and will sound the alarm if gas levels at the sensor exceed 10% of the Lowest Explosive Limit. (LEL)

To test the system, press the TEST button on the sensor. (This simulates an output from the gas sensor element.) The alarm will now sound. The alarm will stop when the key is released but the monitor will indicate that an alarm condition has occurred by flashing the red LED. This can be cancelled by pressing the CANCEL button.

**If the alarm sounds it can be cancelled at any time by pressing the CANCEL button. After a period of 2 minutes, if the gas level still remains above 10% LEL, then the alarm will sound again.**

## **CONDITION**

## **WHAT DOES THIS MEAN**

The unit ticks, alternate red and green LEDs flash.

The sense element is being Purged.

The unit is silent with the green LED flashing every second.

The system is functioning correctly and gas level is below 10% LEL.

The two tone alarm is sounding and both LEDs are flashing.

The system has detected levels of LPG in excess of 10% LEL.

The unit is silent with the green and red LEDs flashing.

The system has detected gas and set off the alarm. The gas level has now fallen below 10% LEL and the alarm cleared.

The unit permanently ticks with no LEDs flashing.

There is a system failure. Check wiring and/or replace gas sensor element.

## **GAS SENSOR ELEMENT**

The gas sensor element is a low cost unit which can be replaced periodically to ensure peak performance.

To change the element:-

- (A) Remove the four screws from the rear of the sensor unit and take off the back.
- (B) Remove the screw holding the circuit board and unplug the old sensor element.
- (C) Plug in the new sensor element and re-assemble the unit.

The sensor is factory calibrated so no adjustments are necessary.



## IMPORTANT READ THIS BEFORE UNPACKING INSTRUMENT

Prior to unpacking this instrument read and fully understand the installation instructions. Only proceed with the installation if you are competent to do so. Nasa Marine Ltd. will not accept any responsibility for injury or damage caused by, during or as a result of the installation of this product. Any piece of equipment can fail due to a number of causes. Do not install this equipment if it is the only source of information and its failure could result in injury or death. Instead return the instrument to your retailer for full credit. Remember this equipment is an aid to navigation and not a substitute for proper seamanship. This instrument is used at your own risk, use it prudently and check its operation from time to time against other data. Inspect the installation from time to time and seek advice if any part thereof is not fully seaworthy.

### LIMITED WARRANTY

Nasa Marine Ltd. warrants this instrument to be substantially free of defects in both materials and workmanship for a period of one year from the date of purchase. Nasa Marine Ltd. will at its discretion repair or replace any components which fail in normal use within the warranty period. Such repairs or replacements will be made at no charge to the customer for parts and labour. The customer is however responsible for transport costs. This warranty excludes failures resulting from abuse, misuse, accident or unauthorised modifications or repairs. In no event shall Nasa Marine Ltd. be liable for incidental, special, indirect or consequential damages, whether resulting from the use, misuse, the inability to correctly use the instrument or from defects in the instrument. If any of the above terms are unacceptable to you then return the instrument unopened and unused to your retailer for full credit.

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Dealer Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Date of Purchase \_\_\_\_\_

**Proof of purchase may be required for warranty claims.**

**Nasa Marine Ltd.  
Boulton Road, Stevenage, Herts SG1 4QG England**

#### **Declaration of Conformity**

NASA Marine Ltd declare this product is in compliance with the essential requirements of R&TTE directive 1995/5/EC.

The original Declaration of Conformity certificate can be requested at [info@nasamarine.com](mailto:info@nasamarine.com)

**THIS PRODUCT IS INTENDED FOR USE ONLY ON NON SOLAS VESSELS**

