

FUME DETECTOR
Model # GIFD All Colors
Installation Instructions

IMPORTANT: Follow the boat manufacturers instructions for running the bilge blower and visually inspecting the engine compartments before starting the engine. This fume detector is not intended for the user to disregard the builders recommended safety procedures.

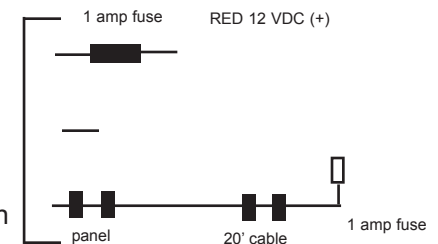
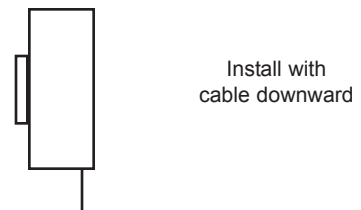
The fume detector is designed to alarm before 20% of the explosive limit (LEL) of GASOLINE vapors are present in the vicinity of the sensor. The sensor **CANNOT MONITOR AN AREA OR COMPARTMENT THAT IS SEPARATED BY A BULKHEAD.** It is recommended a second sensor be installed in any secondary areas where fumes could accumulate.

FOLLOW INSTRUCTIONS CAREFULLY!! FAILURE TO FOLLOW INSTRUCTIONS MAY VOID WARRANTY!!

INSTALLATION:

Note: Do not connect power leads until installation is complete.

1. Select an area at the helm station with at least 3" of back clearance. Cut a 2 1/8" hole and install the panel
2. Connect the 20' cable assembly to the panel, then run the cable to the engine compartment area where the sensor will be located.
3. Gasoline is heavier than air. Mount the sensor assembly about starter height on the forward bulkhead wall with the cable to the bottom. (Figure 1)
DO NOT MOUNT NEAR EXHAUST LINES OR WITHIN 12" ABOVE THE BOAT BATTERIES. High heat and battery fumes may cause false alarms. Connect the cable at the sensor.
4. **DO NOT MOUNT THE SENSOR WHERE IT WILL GET EMERGED IN BILGE WATER, THE SENSOR CAN BE DAMAGED AND MAY REQUIRE REPLACEMENT.**
5. **POWER:** Use and in-line, 1 amp fuse, no more that 7" from the supply (Figure 2).
 - A. Connect the RED lead to 12 VDC positive (+).
 - B. Connect the BLACK ground (-).



TESTING:

Caution: Never enter the engine area with an open flame or lit smoking materials. Open flames and smoking material can cause an explosion!!

1. Push the ON pad to power up the unit, then press TEST to check the operation of the alarm light and sounder.
2. After 60 to 90 seconds, the YELLOW WAIT light will turn off. You cannot test the sensor and supervisory circuits.
SENSOR TEST: Use a butane lighter. Do not use a gas soaked rag. Direct the lighter towards the sensor and depress the lever slightly to release butane gas (DO NOT USE OPEN FLAME!!) The alarm should sound and the RED alarm light should be lit. **PERFORM THIS TEST WEEKLY.**
SUPERVISORY CIRCUIT TEST 1: Disconnect the 20' foot cable from the sensor assembly. The alarm should sound and the alarm light should be lit
SUPERVISORY CIRCUIT TEST 2: Using a pulling and rocking motion, remove the sensor from the socket. The alarm should sound and the alarm light should be lit with the sensor removed.

*** IF THE UNIT DOES NOT TEST PROPERLY, REFER TO THE TROUBLE SHOOTING GUIDE ***

OPERATION: The fume detector has supervisory circuits to warn of defective or disconnected sensor(s) or circuit malfunction, broken or disconnected sensor cable. Refer to the troubleshooting guide to determine the cause of the warning.

1. Press the ON pas to power up the unit. The YELLOW WAIT light will be lit for 60 to 90 seconds while the sensor circuit warms up. GREEN ON will then light, indicating the system is operational. The RED LED on the sensor assembly should also be lit. Whenever the sensor detects gasoline vapors higher than the minimum accepted standards, the alarm will sound and the alarm light will be lit. The alarm will continue until the air in the sensed area is within the accepted standard level.
2. Steps to take in ALARM CONDITION
 - A. Turn off all other electrical equipment, extinguish all open flames, cigarettes, etc.
 - B. Shut down the engine(s) if safe navigation conditions exist.
 - C. Open the engine compartment and any other door, window or hatch that will ventilate the sensed area.
 - D. Proceed with caution to locate and replace the source of the leak, seek professional assistance, if necessary.

MAINTENANCE

1. It is recommended the sensor be replaced annually due to contamination caused by the marine environment
2. BILGE MAINTENANCE: Cover the sensor when power washing, painting, or using any chemicals in the vicinity of the sensor. Direct contact with oil, CRC, WD-40, aerosols and/or bilge water can damage the sensor.

TROUBLESHOOTING GUIDE	
PROBLEM	CAUSE
No power	Power connections, fuse, reverse polarity, defective panel
Stays in WAIT	Replace sensor assembly
Immediate alarm when turned on	Cable not connected to the panel, sensor assembly or both Cable wires cut
Alarm sounds after WAIT cycle	Sensor is not in sensor socket, defective sensor or assembly
No sound pushing TEST pad	Defective panel - replace panel
No alarm with cable unplugged	Defective panel - replace panel
No alarm testing sensor	Defective sensor, assembly or panel 1. No alarm with sensor removed a. Press TEST, no alarm, replace panel b. Press TEST does not alarm, replace assembly 2. No alarm with lighter test a. Replace sensor b. Replacement sensor did not correct problem, replace unit
Red LED on sensor box off	Control panel turned "OFF" Cable, not connected Defective LED, replace

TECHNICAL SPECIFICATIONS

Power Supply: 12 VDC
 Operational Voltage: 7 - 15 VDC
 Power Draw: .230 amp/hrs @ 14.4 VDC
 .165 amp/hrs @ 10.2 VDC
 Operating Temp: -220F/-300C to 1400F/600C
 Relative Humidity: 0 - 85% non condensing LEL
 Sensor Sensitivity: For less than 20%
 of Gasoline to 100% EL
 Gauges tested by UL: Gasoline, propane,
 hydrogen
 Untested detectable
 Gas: Acetone, alcohol, butane
 Maximum Sensors: 2
 Maximum Panels: 2
 Enclosure Material: High impact 94VO ABB
 Marine UL listed: MC871

*Specifications subject to change without notice

OPERATIONAL FEATURES

Sensor malfunction alarm, cable supervision alarm, reverse polarity protected, On/Off switches, panel test circuit, warm-up indicator, silent warm-up, visual alarm indicator, operational indicator, quick change sensor

LIMITED WARRANTY

Livorsi Marine, Inc., fume detector model is warranted to be free from defects in material and workmanship to the original purchaser for a period of 36 months from the date of purchase. The sensor is warranted for 12 months from the date of purchase. This warranty does not cover damage or failure resulting from an act of God, abuse, misuse, neglect or faulty installation, unauthorized repair and/or substitution of parts. Full performance specifications expressed or implied which can be adversely affected by installation and environment are not guaranteed under this warranty.

LIMITED LIABILITY

There are no obligations or liabilities on the part of Livorsi Marine, Inc. for consequential damages arising out of, or in conjunction with, the use or performance of the products, or other indirect damages with respect to property, revenues, profit, cost of removal, or reinstallation. In no event shall Livorsi Marine, Inc. be liable for representations of retail seller. Any defective Livorsi Marine, Inc. product should be returned to an authorized dealer or to Livorsi Marine, Inc. for repair or replacement. Proof of purchase is required.