

RIDE THE DUCKS INTERNATIONAL
Fleet Operations & Safety
2320 West Highway 76
Branson MO 65616

Bulletin No. SB-00-04-15
Release Date: 4/30/15
Effective Date: 4/30/15
Supersedes: N/A
Applicable to: Gas Powered Ducks
Total Pages: 4

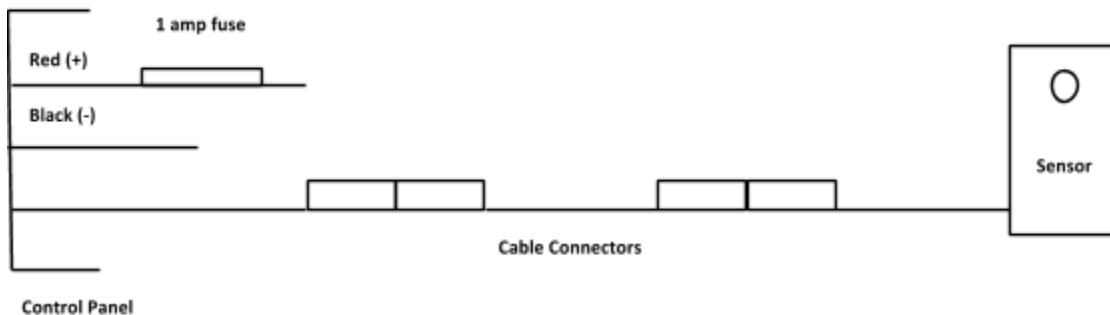
SERVICE BULLETIN

REASON FOR RELEASE: Due to availability issues the current Brisson gas vapor detection devices are no longer being utilized on our gas powered Ducks. Brisson vapor detection systems currently installed and those you may have remaining in stock as replacements can be continually utilized until such time you no longer have any in stock or the one installed becomes unserviceable. The replacement model is [SAFE T ALERT](#) SA-1 manufactured by Marine Technologies INC (MTI Industries) See manufacturer's USER MANUAL for additional information not provided within this bulletin.

INSTALLATION: DO NOT CONNECT POWER UNTIL INSTALLATION IS COMPLETE

1. Locate the Safe T Alert sensor and control panel in place and/or in the same location as the existing Brisson system.
2. Connect one end of the 20 foot cable assembly to the control panel and run the cable to the engine compartment location of the sensor assembly. Repeat the process to connect the sensor located at the fuel tank.
3. Mount the sensor in the same location of the Brisson that is being removed. Do not mount the sensor where it can get wet or emerged in water. Do not mount with the cable up as water can run into the sensor assembly and damage the sensor assembly.
4. Use a 1 amp in-line fuse and connect the RED power lead to the 12 VDC battery positive (+). Connect the Black lead to the battery ground (-).
5. Ensure Manufactures Manual is provided in the Ducks Orange box.
6. When replacing the Brisson units the instructional placard must be replaced as well. See Pg. 3 Example of "SAFE T ALERT" Instructional Placard.

WIRING DIAGRAM



OPERATION:

The SA-1 has supervisory circuits to warn of missing sensor, sensor assembly malfunction, disconnected or a broken connector cable.

1. Press the ON pad on the control panel. The Yellow Wait light should turn on. Press the test pad to check the operation of the alarm sounder and alarm light. In about two minutes the Yellow Wait light will turn off and Green Operational light will turn on. The detector is now operational and monitoring for gas fumes.
2. When the sensor detects gasoline fumes above the alarms threshold levels, the alarm will sound and RED Alarm light will turn on. The alarm will continue until the air in the monitored area returns to safe levels.
3. See Manufacturer Manual for users "[PROCEDURES TO TAKE DURING AN ALARM](#)"

NOTE: All work must be performed by qualified personnel. Use only authorized components, specified or provided by Ride The Ducks. All applicable OSHA safety standards and safe industry practices must be observed. Observe all safety information contained in the manufacturers manuals. Make available this bulletin and all related technical information to personnel using the equipment.

[CONTACT US VIA EMAIL](#)
RTDI FLEET OPS HOTLINE: 417 266 7676
RTDI PARTS: 417 266 7626

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SPECIFICATIONS

POWER SUPPLY - 12 VDC	ALARM THRESHOLD - <20% LEL of Gas
OPERATING TEMP - 22 degree F - 160 degree F	OTHER GASES NOT DETECTED BUT NOT LISTED:
MARINE UL LISTED - UL 1110	Alcohol, Acetone, Hydrogen and most other flammable gases
OPERATIONAL VOLTAGE - 7 - to 15 VDC / POWER DRAW - .200 amps @ VDC	

TESTING

WARNING: Test the detectors operation after the Duck has been in storage, before each trip and at least once per week during use.

1. With the unit on, check the sensor assembly light. The RED light should be on.
2. When the Green normal operation light is lit the sensor assembly can be tested.

WARNING: Never enter the engine compartment with an open flame or lit smoking materials. Open flames and smoking materials can cause an explosion and or fire.

NOTE: Use only butane lighter to perform this test, never use gas soaked material.

3. **SENSOR TEST:** Direct the lighter towards the sensor and depress the the lever to release gas into the sensor. The alarm should sound and the RED alarm light on the control panel should be lit.
4. **SUPERVISORY TEST 1:** Disconnect one end of the 20 foot connector cable. The alarm should sound and the RED alarm light on the control panel should be lit.
5. **SUPERVISORY TEST 2:** Use a pull and rocking motion to remove the sensor from the sensor assembly. See Photo PG 4. The alarm should sound and the RED alarm light on the control panel should be lit.

IF THE UNIT DID NOT TEST PROPERLY REFER TO THE TROUBLESHOOTING GUIDE

TROUBLESHOOTING GUIDE

PROBLEM	CAUSE
NO POWER	Wire connection, missing or blown fuse, reversed wires, defective unit
LOCKED IN WAIT	Replace sensor assembly SA-186-SB
IMMEDIATE ALARM TURNED ON	Cable disconnected or broken, Sensor assembly, check sensor assembly red light
NO AUDIBLE ALARM	Return for repair or replacement
NO ALARM DURING SUPERVISION TESTS	Return for repair or replacement
RED LED ON SENSOR ASSEMBLY IS OFF	Unit is off, Cable disconnected or broken, SA-186-SB defective
NO ALARM WHEN SENSOR IS REMOVED	If panel tests OK replace SA-186-SB
NO ALARM WITH LIGHTER GAS TEST	If the panel test OK replace sensor SA-186-S, if that does not remedy the condition replace the sensor assembly SA-186-SB

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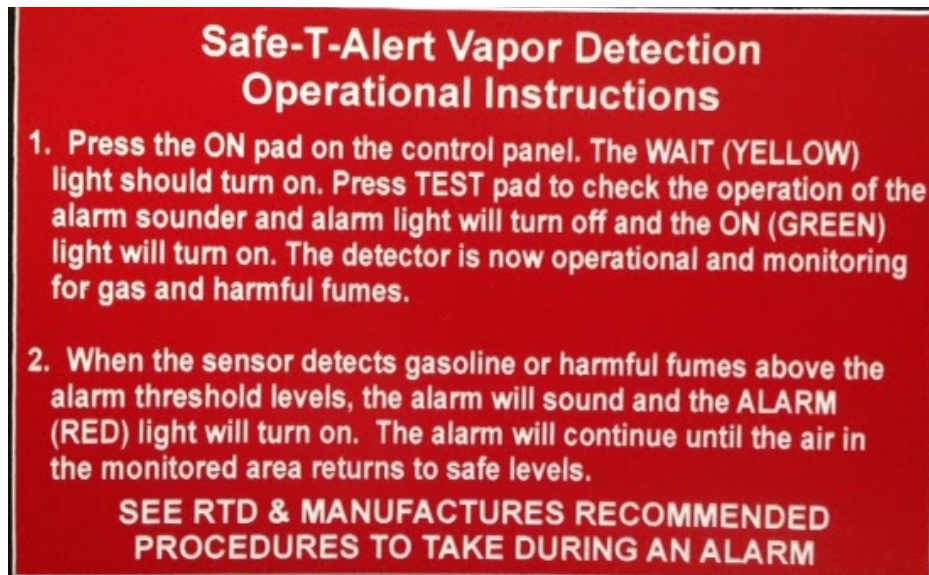
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MAINTENANCE

WARNING: Fumes from a half cup of gasoline have the explosive force of six sticks of dynamite. Gasoline vapors can develop in fuel pumps, fuel tanks, fuel lines, carburetors and fuel systems. The SAFE T ALERT SA-1 detector is tested and listed by Underwriters Laboratories for marine use. They are an early warning monitor, designed to notify the user when 20% or less of lower explosive limit of gasoline or propane vapors are present in the monitoring area.

1. Keep the sensor free of dust and debris. It is recommended that the sensor (MTI Part No. SA-186-S) be replaced annually due to the marine environment.
2. Remove the sensor whenever the bilge compartment or engine compartment equipment is being cleaned, painting, power washed, etc. Direct contact with chemicals, WD-40, water, oil, etc can cause permanent damage to the sensor.

EXAMPLE OF "SAFE T ALERT" VAPOR DETECTION INSTRUCTIONAL PLACARD

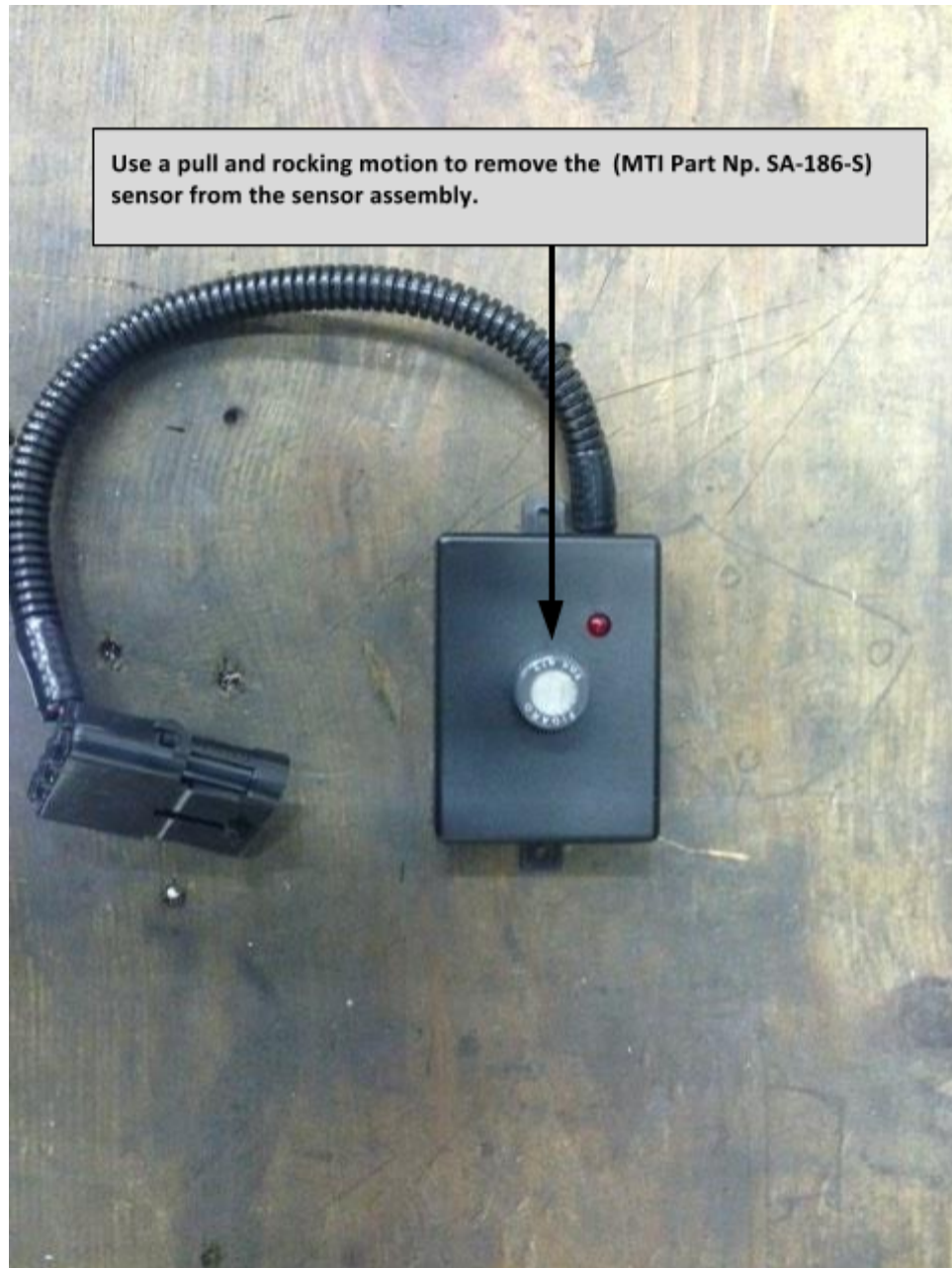


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