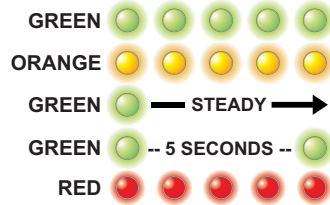


VACUUM SENSOR LED COLOR IDENTIFICATION:

GREEN LED flashing quickly: Your housing system is ready to be depressurized



ORANGE LED flashing: informs you that there is not yet sufficient vacuum built up for a proper diagnostic or that there is a minute loss of pressure over an extended period of time.

GREEN LED glowing steady: The correct amount of vacuum has been attained

GREEN LED flashing slowly: Your housing system is holding vacuum pressure

RED LED Flashing & audible signal: Your housing system is not holding vacuum pressure or there is water making contact with the sensor probe terminal.

MOISTURE DETECTION LED COLOR IDENTIFICATION

RED LED Flashing & audible signal: There is water making contact with the sensor probe terminal.

KITS DESCRIPTION AND CONTENT

19227: Includes

- 1x AQUATICA SURVEYOR Moisture/vacuum sensor circuitry
- 1x CR2032 Battery
- 2x Mounting screws & spacers
- 1x Pressure valve assembly
- 1x Vacuum pump
- 1x Container AQUATICA O-ring lubricant

19228: Includes

- 1x Pressure valve assembly
- 1x Vacuum pump
- 1x Container AQUATICA O-ring lubricant

19229: Includes

- 1x AQUATICA SURVEYOR Moisture/vacuum sensor circuitry
- 1x CR2032 Battery
- 2x Mounting screws & spacers

AQUATICA™

Digital

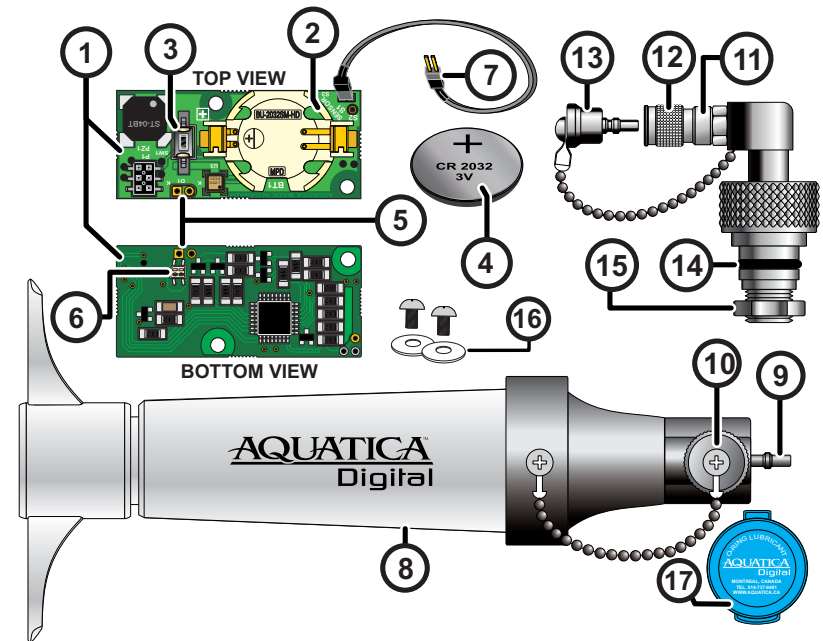
NOMENCLATURE

Moisture & vacuum sensor circuit.

1. Moisture/vacuum sensor circuit
2. Battery compartment
3. Vacuum sensor power switch
4. CR 2032 3V Battery
5. Soldering point for external LED
6. Integrated warning LED
7. Probe wire harness

Vacuum Pump & Valve

8. Vacuum pump
9. Vacuum pump stem
10. Pressure release plug
11. Vacuum valve
12. Quick disconnect collar
13. Valve plug
14. Sealing O-Ring
15. Retaining nut
16. Mounting screws and spacers
17. O-ring lubricant container.



Thank you for purchasing the AQUATICA SURVEYOR moisture and vacuum sensor alarm. This device has two distinct purposes, to provide a moisture detection circuitry and an ambient pressure sensor circuitry, both integrated on the same circuit board.

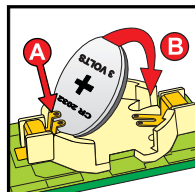
The AQUATICA SURVEYOR moisture/vacuum sensor alarm is available as follows

19227: Kit that includes the moisture/vacuum sensor circuitry with battery, the valve assembly and the vacuum pump

19228: Valve assembly and vacuum pump.

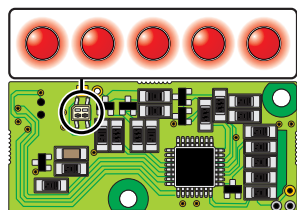
19229: Moisture/vacuum sensor circuit (battery included)

A standard CR2032 battery cell (# 4) is provided as the power source. To insert the battery, first slide it into the battery compartment, making sure that it is under the two contacts (A) first, and then push down (B) until it snaps into place.



MOISTURE DETECTION FUNCTION:

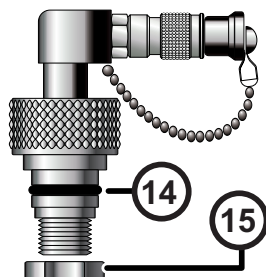
The moisture detector function of the **Surveyor** alarm is always on standby and need not be activated. In the event of any contact with water, an audible signal coupled with a blinking bright red flashing LED will be activated. Proceed to remove the housing from the water, always keeping in mind your personal safety .



To test the moisture alarm circuitry, simply moisten the tip of your finger and establish contact with the end of the probe contact (# 7). This should trigger the alarm signal. If it fails to activate, check the battery and replace it with a fresh one if necessary.

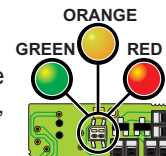
INSTALLING THE PRESSURE VALVE ON THE HOUSING:

if it was not installed at the factory or was bought separately, you will be required to install the pressure valve of the SURVEYOR Moisture and Vacuum sensor kit on your housing. Find a suitable entry point on the housing and remove the existing plug from the bulkhead access hole. To install the valve, lubricate the Valve bulkhead connection O-ring (# 14) with AQUATICA O-ring lubricant. Carefully insert the valve into the bulkhead hole, slightly rotating the valve while pushing makes it easier. Tighten the retaining nut (# 15) securely using a 5/8" wrench.

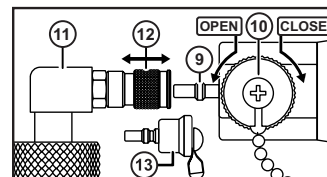
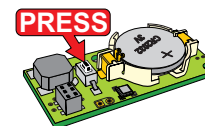


VACUUM SENSOR PROCEDURE:

When using the vacuum sensor mode, the status LED (# 3) of the SURVEYOR circuit displays three colors: **GREEN, ORANGE & RED**, all representing different stages of the operation.



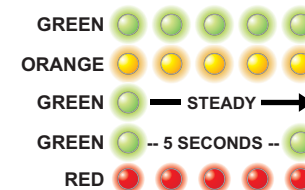
Step 1: Prior to closing the housing, turn the system on by pressing the vacuum sensor power switch (# 3). A **GREEN LED** (# 6) signal will start flashing quickly, telling you it is ready.



Step 2: Close the housing, remove the valve plug (# 13) by pulling on the quick disconnect collar (# 12) insert the pump stem (# 9) and release the quick disconnect collar (# 12).

Step 3: Extract the air from the housing by pumping, preferably keeping the pump level with the valve in order to attain the maximum vacuum with each stroke. The amount of pumping required will vary according to the housing dimensions and the port configuration being used. However, the proper amount of vacuum should always be attainable within a reasonable delay.

As the vacuum builds up, the quick flashing **GREEN** LED will change to **ORANGE**, to finally turn to a **GREEN** signal that will then slowly blink at a 5 seconds interval. For good measure add one or two extra pump cycles.



NOTE: Be careful not to over depressurize the housing, this will trigger the alarm and require the sensor to be reset.

Step 4: Remove the pump by sliding the quick disconnect collar (# 12) and return the vacuum valve plug (# 13) back in place

Step 5: To open the housing or replacing a port, you need to equalize the pressure inside the housing to the ambient level. Remove the valve plug (# 13), reconnect the pump stem (# 9) to the vacuum valve (# 11) and unscrew the pressure release plug (# 10) on the pump. Once the pressure is equalized to an ambient level you may proceed to open the housing.

In the unlikely event that the housing would fail to maintain its sealing integrity, the SURVEYOR System will trigger a fast blinking **RED** LED warning coupled with an audio signal. In the case of minute loss of pressure stretched over a longer period of time, an **ORANGE** LED signal will flash to inform you of a potential slow leak.

If your housing does not maintain a constant vacuum, proceed to a thorough inspection of the user serviceable O-rings of the housing. If unsuccessful in determining the source of the leak, refrain from immersing the housing and return it to your nearest authorized service center for inspection.