

SW-220V-1L

Sump Alarm High Water Alarm and Monitor

The Sump Alarm High Water Alarm and Monitor is *designed for outdoor use, sun, rain, and temperature resistance, and contains only Long Life LED Pilot lights.*

Properly installed, Sump Watch provides control of the pump and status lights to indicating current conditions.

Sump Watch is equipped with a high water alarm system. It activates when the water level in the basin or sump rises above the desired level. The alarm system includes a red LED beacon with integrated audible alarm buzzer.

The high level alarm system will automatically reset when the high level condition is corrected. The enclosure is weatherproof to allow outdoor installation and has a flammability rating which meets UL 94-5V. **Figure 1** shows the front of the control panel.

Read and follow all instructions and safety guidelines



thoroughly before installing or operating the control panel system. Failure to follow the instructions could result in serious bodily injury or death and/or property/pump damage.



SAFETY GUIDELINES

WARNING: DISCONNECT ALL POWER BEFORE INSTALLING OR SERVICING THE PUMP OR THE CONTROL PANEL!

- 1. Read and follow all safety guidelines and installation/operation instructions.
- 2. Follow all national, state or provincial, and local building, plumbing and electrical codes and ordinances.
- 3. Do not install or operate the control panel while standing on a wet or damp surface.
- 4. Do not energize the head unit if an electrical component is damaged or appears damaged or the head unit is open.
- 5. Do not energize if there are wires are disconnected or appear loose, frayed, or damaged.
- 6. Secure the head unit to prevent unauthorized persons or those who may be unfamiliar with its operation from opening the control panel.
- 7. Do not install the unit in locations classified as hazardous in accordance with the most recent National Electrical Code.
- 8. Follow all installation/operation instructions and safety guidelines accompanying the grinder pumps and/or basin system.



LOCATING THE HEAD UNIT

The control panel should be mounted in a convenient location. Cable lengths need to be considered, and extra cable can be stowed above or below the water line. The location should allow "line-of-sight" visibility of the indicating light from the desired vantage point. The surface on which it is mounted should not be subject to substantial vibrations. Follow the National Electrical Code and all local and state or provincial codes.

MOUNTING THE CONTROL PANEL

The control panel should be securely mounted to a wall or secure vertical structure. The control panel has two mounting holes, which can be accessed by removing the face plate. Stainless Steel screws have been included for your convenience. Should a screws of a different length be required, utilize a #8 Pan Head screw.



Note that the two weather proof mounting holes can be accessed by opening the head unit and are directly adjacent to the posts for mounting the face of the head unit.

The diagram at the right is a scaled hole pattern template for mounting. A 1/8" drill bit is recommended.





MOUNTING FLOAT SWITCHES

Sump Watch is equipped with a float sensor, shown at right. Positioning and installation of the float switches is application dependent and will require consideration by you, the user.

The ALARM sensor should be positioned as the UPPER LEVEL SENSOR shown in the drawing below. The sensor should be mounted to activate (swing up) when the water level rises

past normal. The float will move relative to the adjustable counterweight on the cable.





The Float sensor will need to be positioned in the sump and TESTED in its final location in order to fill it's intended function. The float contains a counterweight positioned on the cord and requires a range of motion relative to the counterweight. When the float switch drifts above the counterweight, the switch closes, and when



3" Minimum Clearance

Move Stopper to Adjust Counterweight Positions it returns below the counterweight the switch will open. The float must be free to rise and fall without interference. The counterweight on the float switch can be moved up and down the cable as required. A minimum of 3" of cable is required between the float and counterweight. **IT MAY BE NECESSARY TO ANCHOR THE CABLES AT THE TOP OF THE SUMP TO CONTROL THE SENSOR HEIGHTS.**





TESTING THE UNIT

- 1. If not already complete, with POWER OFF mount the head unit, adjust the counterweight, and position or mount the float switch to sense high level.
- 2. Plug SUMP WATCH into a 220V power supply.
- 3. **FILL THE SUMP, POND, or cause a high-level condition** using a hose or other means. STOPPING or unplugging the pump may be required. Observe the float switch rise above the counterweights in the desired locations.
- 4. **CONFIRM THAT THE RED LIGHT ILLUMINATES AND HORN SOUNDS.** If not, adjust the counterweights and or cable anchoring such that the floats are active when the sump or tank is full.
- 5. Allow the level to lower using the pump or other means. As the water drains:
 - a. The RED "HIGH WATER ALARM LIGHT" should turn OFF, and AUDIBLE ALARM will STOP.
 - b. The cables should return to their original position without dragging or catching.
- 6. IT IS SUGGESTED TO FILL AND EMPTY THE SUMP SEVERAL TIMES and ensure the float switches are properly located, with the correct range of motion, and cables are free from any obstacles.

After the TESTING check has been completed, the unit is ready for operation.

TO PREVENT PUMP DAMAGE, DO NOT OPERATE THE PUMP WITHOUT WATER FOR AN EXTENDED DURATION. CONSULT THE PUMP MANUAL FOR GUIDANCE.

Note: Common causes of HIGH WATER ALARM include:

- 1. Dirt, leaves, rocks, sticks, and other debris are blocking the pump inlet.
- 2. The pump has been angled or turned over by the presence of the above and the level switch is permanently submerged.
- 3. The discharge of the pump is blocked or restricted (including frozen)
- 4. The pump is undersized for the application (generally a new pump which runs constantly)
- 5. The lower level switch is not operating properly, or is stuck.
- 6. The bearings or impeller internal to the pump are worn

The light is an indicator to investigate these conditions, note that only condition #6 requires work to the pump, the others would continue indefinitely and would continue to exist in many cases even if the pump were replaced.