

HC3000 High Water Shutoff

Operational Overview

The HC3000 High Water Shutoff is designed to disable a pump or piece of equipment when the sensor detects the presence of water. When the sensor isn't detecting water the output is energized and the LED is green. When the sensor detects water the output is de-energized, the LED is red and the alarm will sound. **Once in the de-energized state the switch needs to be reset to enable the output to turn back on. This is accomplished by unplugging the switch from the outlet, waiting a few moments, and re-plugging it back in.**

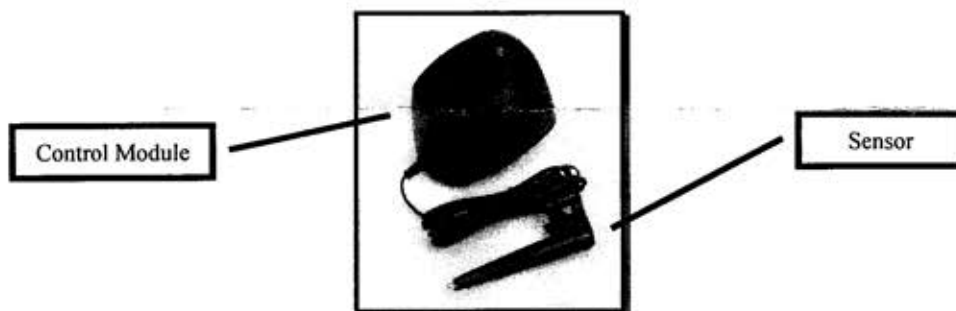
Specifications

- Power: 120 VAC, 60Hz
- Output Rating: 120 VAC, 13.8 Amp
- Alarm Rating: 80 db
- Sensor Cable Length: 12 feet

Installation

1. Place the sensor in the pit/tank at the level where the HC3000 High Water Shutoff Switch is to activate/deactivate. Normally this is at the maximum water depth allowable in the pit/tank. If the sensor is expected to be submerged for extended periods of time, it should be positioned so that it doesn't touch anything else in the pit/tank, such as the wall of the pit, the pump power cord, etc.
2. Plug the Control Module into a 120 VAC outlet
3. Plug the pump into the Control Module

Important: The switch should be tested monthly to insure proper operation. To do this, submerge the sensor in pit/tank while the pump is running. The pump should turn off immediately and stay off until the sensor is removed from the pit/tank and the switch is reset as described above. It may be necessary to clean the sensor to remove any buildup of minerals or organic material. When cleaning, the pin and body of the sensor should be cleaned with vinegar and rinsed with clear tap water.



HC3000 High Water Shut-Off Limited Lifetime Warranty

STAK Enterprises Inc. warrants the Model HC3000 High Water Shut-Off to be free from defects in materials and workmanship for its normal, useful life, from the date of purchase. STAK Enterprises Inc. makes no other express warranty for this device. No agent, representative, dealer, or employee of STAK Enterprises Inc. has the authority to increase or alter the obligations or limitations of the warranty. The company's obligation of this warranty shall be limited to the repair or replacement of any part of the HC3000 which is found to be defective in materials or workmanship under normal use and service during the duration of product use by original product owner commencing with the date of purchase. Owner must pay all shipping charges necessary to replace product covered by this warranty. This warranty shall not apply to acts of God, nor shall it apply to products which, in the sole judgment of STAK Enterprises, Inc. have been subject to negligence, abuse, accident, tampering, alteration, misapplication, or improper installation. Units in need of repair should be returned, shipping prepaid, to

Customer Service Department
STAK Enterprises, Inc.
2413 West Algonquin Road
#309
Algonquin, IL 60102

THE DURATION OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THAT OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSES, SHALL BE LIMITED TO THE NORMAL, USEFUL LIFE OF THE PRODUCT, COMMENCING WITH THE DATE OF PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

Questions or Comments Contact Us At:

www.washerwatcher.com or information@washerwatcher.com or 877-225-2124

Rev A

Important Note:

How the Sensor Works:

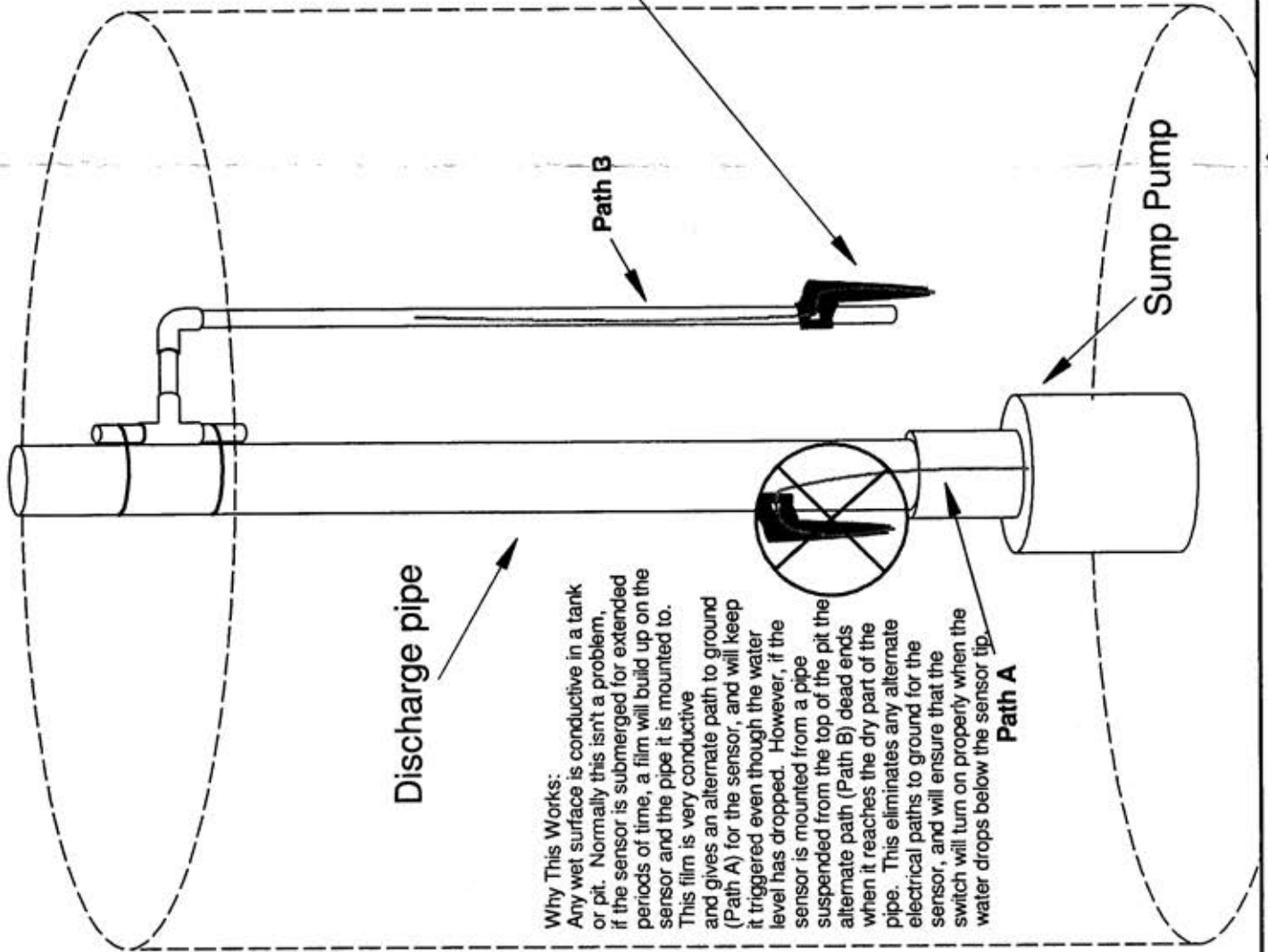
The sensor detects the presence of water by using a continuity circuit, which, when the tip of the sensor is in water, allows a small voltage to flow from the sensor, through the water, to ground. When no water is present, the circuit is broken and no voltage flows. Normally, the pump provides the ground needed for the continuity circuit, but occasionally it won't.

When this happens, it is necessary to provide a ground for the sensor to work. This can be done with a length of wire (14 AWG) having a couple of inches of insulation stripped off at both ends. Secure one end of the wire around a water pipe or electrical conduit. Place the other end into the pit far enough down so that the end of the wire is below the sensor. ***Note that placing the sensor in a cup of water will not trigger the pump to come on because there is no ground reference to complete the continuity circuit.***

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**Recommended Installation
for Sensor in Water with
High Mineral Content**

Sensor mounted to pipe
suspended from top
of pit. Sensor tip should
extend below end of pipe.



Discharge pipe

Why This Works:
Any wet surface is conductive in a tank or pit. Normally this isn't a problem, if the sensor is submerged for extended periods of time, a film will build up on the sensor and the pipe it is mounted to. This film is very conductive and gives an alternate path to ground (Path A) for the sensor, and will keep it triggered even though the water level has dropped. However, if the sensor is mounted from a pipe suspended from the top of the pit the alternate path (Path B) dead ends when it reaches the dry part of the pipe. This eliminates any alternate electrical paths to ground for the sensor, and will ensure that the switch will turn on properly when the water drops below the sensor tip.

Path A

Path B

Sump Pump

STAK Enterprises, Inc.

DRAWN S. Johnson	09/16/10	HC3000	Sensor Installation	
CHECKED			SIZE A	DWG NUMBER TBD
ENGINEER S. Johnson	09/16/10		REV -	SHEET 1 OF 1
APPROVED				
SCALE 1 : 1				