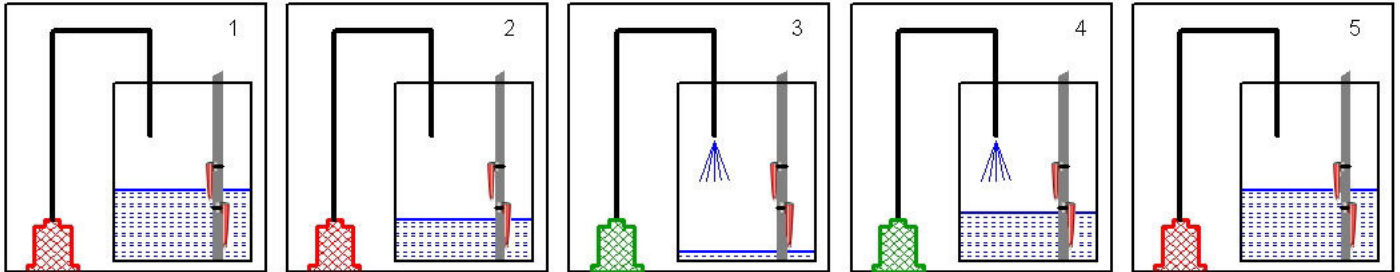


# Model HC4000 Tank Level Controller

## Installation Instructions

### Overview

The HC4000 Tank Level Controller uses the position of its two sensors to control the water level in a tank or vessel. Its operation is detailed in the graphic below:



Box 1: Both sensors detecting water – Pump off and indicator solid red

Box 2: One sensor in water, other sensor out of water – Pump off and indicator flashing red

Box 3: Both sensors out of water – Pump on and indicator solid green

Box 4: One sensor back in water, other sensor still out of water – Pump on and indicator flashing green

Box 5: Both sensor back in water – Pump off and indicator solid red. Cycle complete

### Installation

**Step 1**  
Plug control module into 120 VAC outlet. **Note that the HC4000 is not rated for outdoor use.**

**Step 2**  
Position and secure both sensors in tank/vessel. Refer to figure for detail on how to secure sensor to pipe. Note that the pump will turn on when water drops below lower sensor, and turns off when it reaches the upper sensor.

**Step 3**  
Plug pump or solenoid valve into front of Control Module.

**Step 4**  
Test installation by running through complete cycle.

### 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.**

Questions or Comments Contact Us At:

[www.hydrocheckproducts.com](http://www.hydrocheckproducts.com) or [info@hydrocheckproducts.com](mailto:info@hydrocheckproducts.com) or 877-225-2124

## HC4000 Tank Level Controller Troubleshooting Chart

The light on the front of the Model HC4000 Tank Level Controller will indicate the following conditions:

Indicator	Description
Steady Red LED	Pump off, both sensors detecting water
Flashing Red LED	Pump off, lower sensor is detecting water
Steady Green LED	Pump on, neither sensor detecting water
Flashing Green LED	Pump on, water between sensors

**Important:** The switch should be tested monthly to insure proper operation. To do this, drain the tank until the water drops below the lower sensor. The pump should turn on immediately and run until the water reaches the upper sensor, at which point it should turn off. **If the sensors aren't mounted as recommended** in the attached drawing (*Recommended Installation for HC4000*), they should be cleaned monthly to remove any buildup of minerals or organic material which can cause the them to malfunction. When cleaning, **the pin and body of the sensor** should be cleaned with vinegar and rinsed with clear tap water.

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### Model HC4000 Hi-Lo Pump Switch Limited Lifetime Warranty

STAK Enterprises Inc. warrants the **Model HC4000 Tank Level Controller** 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 HC4000 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

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