

# Model HC4000 Tank Level Controller

**HydroCheck**  
Controlling Water.  
Preventing Damage.

## Installation Instructions

### Overview

The installation of the **HC4000 Tank Level Controller** is simple and straightforward, but there are **TWO VERY IMPORTANT** things to remember for the HC4000 to give you years of trouble free, worry free, service.

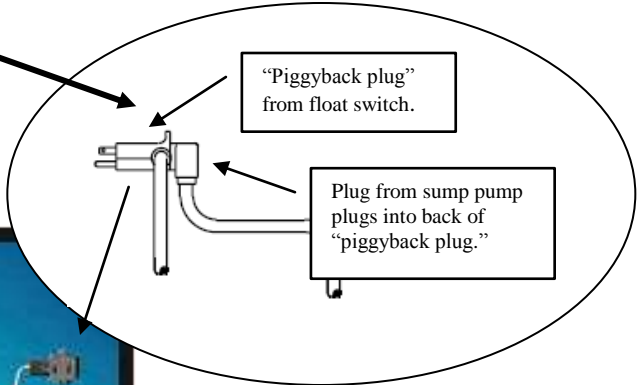
1. The “**piggyback plug**” attached to the mechanical float switch **cannot be used with the HC4000**. It must be disconnected and remain disconnected. Just let it lay on the floor after the HC4000 is installed.
2. If your sump pump has internal float switch wiring, i.e., doesn't have a “piggyback plug,” then you **MUST** secure the float up as if the pit were full so that its internal switch is always closed and the pump enabled.

### Step-by-Step Installation

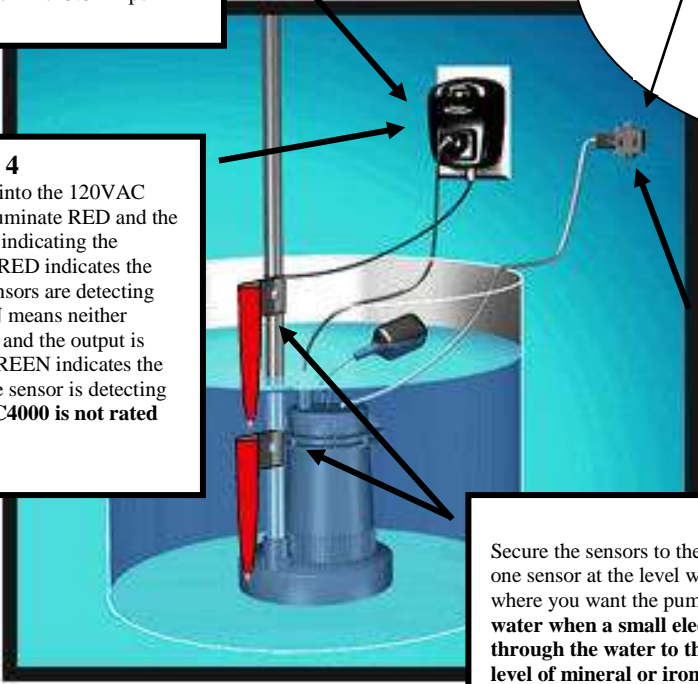
**Step 6**  
Plug the sump motor into the control module. Note that the HC4000's output is rated for a maximum of 120 VAC, ¼ HP/13.8 Amps

**Step 4**  
Plug the control module into the 120VAC outlet. The LED will illuminate RED and the buzzer will beep 3 times indicating the HC4000 is ready to go. RED indicates the output is off and both sensors are detecting water. A steady GREEN means neither sensor is detecting water and the output is turned on. A flashing GREEN indicates the output is on and only one sensor is detecting water. **Note that the HC4000 is not rated for outdoor use.**

**Step 1**  
Unplug sump pump from back of “piggyback plug.”



**Step 2**  
Unplug the “piggyback plug” from the 120VAC outlet and set aside. The HC4000 replaces the float switch, so the “piggyback plug” won't be needed any more.



**Step 3**  
Secure the sensors to the discharge pipe or a piece of ½” PVC pipe. Place one sensor at the level where you want the pump to turn on and the other where you want the pump to turn off. **Note that these sensors detect water when a small electrical current passes from the tip of the sensor through the water to the grounded pump. Some pits that have a high level of mineral or iron content can cause a problem with the sensor if it is allowed to touch something else in the pit.**

For this reason, it is important to locate the sensor in a place where it doesn't touch anything and where it isn't in the path of the incoming water or the spray from the bleed hole.

Note: the sensors use an external ground (i.e. the pump) as part of the water detection circuit. Putting a sensor in a cup water will not cause it to trigger.



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## HC4000 Tank Level Controller Troubleshooting Chart

The Model HC4000 Tank Level Controller has a number of built in alarms that warn of problems with the pump or discharge plumbing. The available alarms are described in the table below.

Alarm/Indicator	Description	Possible Causes
2 Beeps	Can't turn pump on	Pump not plugged in Float piggy-back plug not disconnected Float switch not secured in "on" position (internally wired float switch)
3 Beeps	Low Level Alarm	Pump can't keep up with water going out Pump not working correctly
Steady Slow Beep*	Motor current above normal	Pump motor beginning to fail
Steady Fast Beep*	Motor current too high	Pump motor failure imminent
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	

\*The HC4000 needs to be reset after replacing the pump by performing the following steps:

1. Unplug the pump from the HC4000
2. Unplug the HC4000 from the 120 VAC outlet
3. Wait 5 seconds then plug the HC4000 back into the 120 VAC outlet
4. Wait for the HC4000 to finish its startup checks (about 5 seconds) then plug the pump back in.

### 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

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