

Model HC6000

Electronic Hi-Lo Pump Switch

Patents Pending

Installation Instructions

Overview

The installation of the **HC6000 Hi-Lo Pump Switch** is simple and straightforward, but there are **TWO VERY IMPORTANT** things to remember for the HC6000 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 HC6000**. It must be disconnected and remain disconnected. Just let it lay on the floor after the HC6000 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 1
Unplug sump pump from back of "piggyback"

"Piggyback plug" from float switch.

Plug from sump pump plugs into back of "piggyback plug."

Step 2
Unplug the "piggyback plug" from the 120VAC outlet and set aside. The HC6000 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 1/2" 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. **Important Note: This installation arrangement will not work in pits that receive water from a water softener or have high mineral content because this makes the water too conductive for the sensors. Visit our website www.washerwatcher.com for recommended installation for these applications.**

Step 4
Plug the control module into the 120VAC outlet. The LED will illuminate RED and the buzzer will beep 3 times indicating the HC6000 is ready to go. RED indicates the output is off. A steady GREEN means both sensors are 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 HC6000 is not rated for outdoor use.**

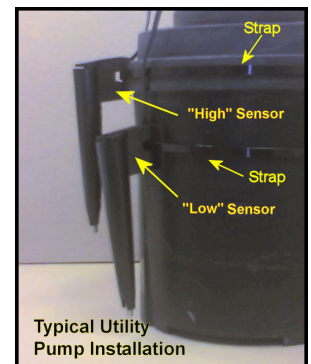
Step 5
Plug the sump motor into the control module. Note that the HC6000's output is rated for a maximum of 120 VAC, 3/4 HP/13.8 Amps (standard for most sump pumps).

Step 6
Important! Test your installation before leaving it for unattended operation. Make sure the pump turns on when the water level reaches the top sensor, and that the pump turns off when the water drops below the lower sensor. Note that because of the way the sensor works, placing it in a cup of water will not trigger the pump to come on, See **How the Sensor Works** below.

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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HC6000 Hi-Lo Pump Switch Troubleshooting Chart

The Model HC6000 Utility Pump Switch 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. **To disable the alarms perform the following steps:**

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Unplug pump from control module. 2. Lift upper sensor out of water. 3. Unplug control module from 120 VAC outlet. Wait 10 seconds. 4. Plug control module back into outlet and wait for unit to beep. | <ol style="list-style-type: none"> 5. Unplug control module from 120 VAC outlet. Wait 10 seconds. 6. Plug control module back into outlet and wait for unit to beep. 7. Plug pump back into control module 8. Place sensor back into water |
|---|--|

Alarm/Indicator/Problem	Description	Possible Causes
2 Beeps	Can't turn pump on	<ol style="list-style-type: none"> 1. Pump not plugged in 2. Float piggy-back plug not disconnected 3. Float switch not secured in "on" position (internally wired float switch)
3 Beeps	High Level Alarm	<ol style="list-style-type: none"> 1. Pump can't keep up with water coming in 2. Discharge plumbing blocked 3. Debris on sensor
Steady Slow Beep*	Motor current above normal	<ol style="list-style-type: none"> 1. Pump motor beginning to fail. Replace pump and/or perform Master Reset as described below.
Steady Fast Beep*	Motor current too high	<ol style="list-style-type: none"> 1. Pump motor failure imminent. Replace pump and/or perform Master Reset as described below.
Steady Red LED	Pump off, no water detected by either sensor	<ol style="list-style-type: none"> 1. Normal Operation
Flashing Red LED	Pump off, water detected by lower sensor	<ol style="list-style-type: none"> 1. Normal Operation
Steady Green LED	Pump on, water detected by both sensors	<ol style="list-style-type: none"> 1. Normal Operation
Slow Flashing Green LED	Pump on, water below upper sensor, and above lower sensor	<ol style="list-style-type: none"> 1. Normal Operation
Pump doesn't turn on	Both sensors in water but the pump doesn't start. LED is steady Red and switch isn't beeping	<ol style="list-style-type: none"> 1. Sensors aren't getting a good ground from pump. Install ground wire as described in "How Sensor Works" on front of sheet
Pump turns off too soon	Pump starts okay, but shuts off after a couple of seconds	<ol style="list-style-type: none"> 1. Sensors aren't getting a good ground from pump. Install ground wire as described in "How Sensor Works" on front of sheet

*Master Reset Procedure:

1. Unplug the pump from the HC6000
2. Unplug the HC6000 from the 120 VAC outlet
3. Wait 5 seconds then plug the HC6000 back into the 120 VAC outlet
4. Wait for the HC6000 to beep 3 times and the light on the front of unit to turn on, then plug the pump back in.

Model HC6000 Hi-Lo Pump Switch Limited Lifetime Warranty

STAK Enterprises Inc. warrants the **Model HC6000 Hi-Lo Pump Switch** 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 HC6000 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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