

Feature Controller Rotary Limit Switch

Rotary Limit Switch Function

The Water Feature Controller Rotary Limit Switch can be used to reliably turn off valves and pumps while the pool is covered with an Integra motorized pool cover. This will prevent water from being pumped from under the cover to on top and the resulting possible damage.

Rotary Limit Switch Specifications

Cover Length capacity: 90 feet

Compatible Equipment Controlled: Valve Actuator, Motor Relay, Pool Automation Controller with NO/NC sensor input

Rated Voltage: 250 VAC

Rated Amps: 3 A

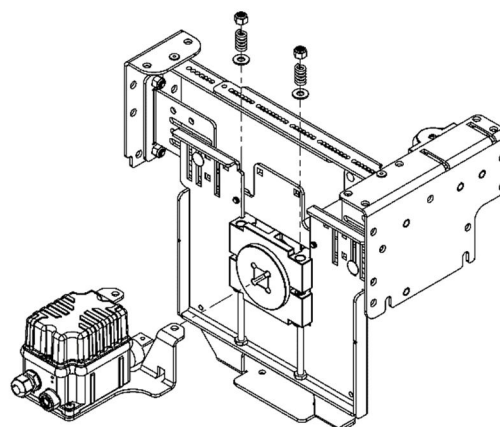
Non-Motor side offset Requirement: 14" Typical (12" MIN),

Installing Rotary Limit Switch

Remove the nuts, springs, and washers from the top of the roll up tube brake adjustment bolts and let the bolts drop down.

Insert the Rotary Limit Switch $\frac{3}{4}$ Shaft Adapter into the $\frac{3}{4}$ socket

on the non-motor end cone and align the bracket mounting holes with the brake adjustment bolts. Push the bolts back up through the brake blocks and reassemble washers, springs, and nuts.

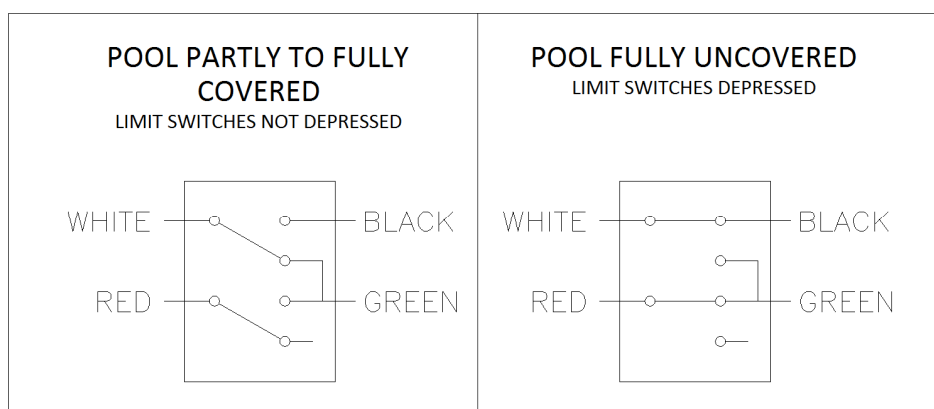


Setting the Uncovered Position

The Limit Switch is activated based on the revolutions of the roll-up tube required to fully retract the cover. The exact number of rotations will vary depending on how tight the cover rolls up on the tube. This can be affected by temperature, water level and age of the fabric. The effects of these increase with the length of the cover. It is best for the limit switch to be activated when the cover is extended over

the pool 3 feet to allow for these variations. Retract the cover so the pool is fully uncovered. Loosen the Limit Switch casing screws and remove the cover. Loosen the center Philips head screw of the cam set. Turn each of the slot head cam adjustment screws 1 and 2 till both cam lobes are aligned and fully depresses the micro limit switches with the switch rollers resting on the lobes just past the corners of the cam lobes. When done retighten center screw. Depending on motor side and mechanism location (recessed/deck mount), the cams may need to be adjusted till the limit switch rollers are resting on the opposite corners of the cam lobes. Cover the pool 3 feet then check the position of the cams. If correct, the limit switches should no longer be depressed. If the switch rollers are further on the cam lobes, retract the cover and adjust the cams till the limit switch rollers are on the opposite corner of the cam lobes. Be sure both cam lobes are aligned with each other. Put the casing back on ensuring proper alignment of the rubber gasket and tighten casing screws.

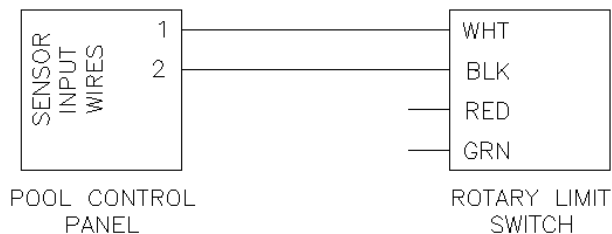
Limit Switch Operation Schematic



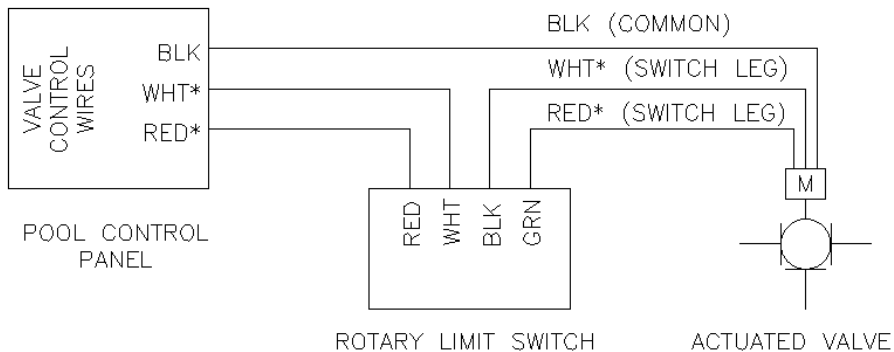
Wiring the Rotary Limit Switch

The Rotary Limit Switch has 30' of 18AWG 4 conductor cable to allow reach to the motor side of the cover housing if the conduit for the Limit Switch is on that end of the cover housing. Low Voltage and High Voltage wires are not permitted in the same conduit. Cut the cable to length as needed and make wire connections inside an all-weather junction box. The Limit switch can be wired to work with a single 3-way valve, a relay controlling a pump motor, or a pool automation controller that supports N.O./N.C. sensor inputs.

Pool Automation Controller Sensor Input

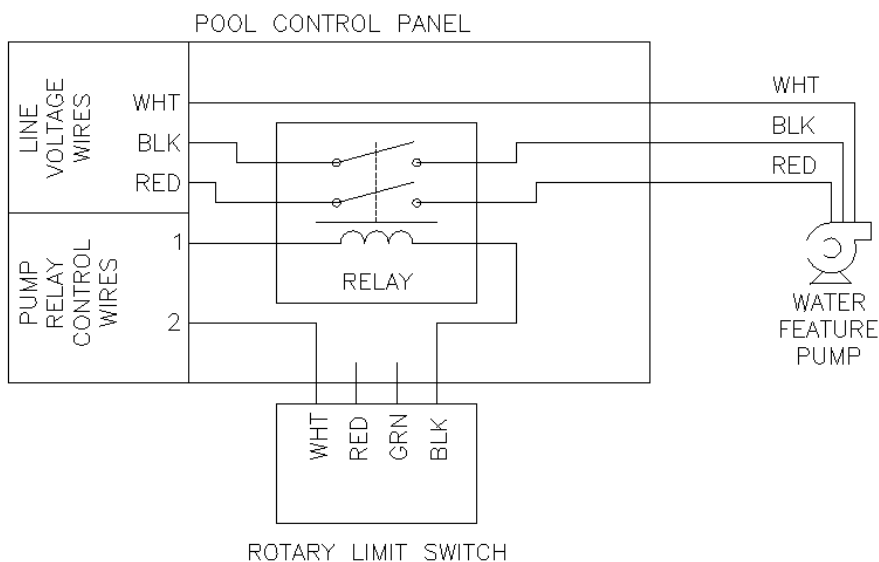


3-Way Actuated Valve



*Depending on the orientation of the valve, white and red may need to be switched to correctly prevent water flow to the water feature.

Relay Controlled Single Speed Pump



Compatible Automation Controllers and other devices:

OmniLogic, OmniPL, OmniHub by Hayward®

Typically, no additional accessories are required. If additional sensor inputs are needed an expansion board from Hayward (PN: HLIOEXPAND) is available for the OmniLogic series of automation controllers.

Supports Spill over Prevention, Chlorinator Reduction.

Number of Pool cover inputs possible: Limited to number of unused sensor inputs available. Typically, 1 to 3 inputs on main board, 4 additional inputs with OmniLogic I/O expansion board.

Sensor Input Location: OminPL and OmniLogic - Load Center, terminal block on left side of main board, first available sensor input after input pairs 1 & 2. OmniHub - Wiring Hub, 8 pin terminal block in the top center of the board, first available sensor input after input pairs 1 & 2.

Menu Navigation:

Add Sensor: Configuration->Configuration Wizard->Sensor

Add Interlock: Configuration->Configuration Wizard->Interlock

IntelliCenter™ by Pentair

Requires Pool Cover Expansion Card from Pentair (PN: 522039Z)

Supports Spill over Prevention, Chlorinator Reduction.

Number of Pool cover inputs Possible: 2

Sensor Input Location: Load Center, behind the Outdoor Control Panel on expansion board attached to Main Motherboard. Second and third pairs of set screw terminal block inputs.

Menu Navigation:

Settings->Advanced Configuration->Installation Setup->Pool/Spa Cover

AquaLink RS OneTouch™ by Zodiac

Requires Cover-Pools®/AquaLink RS® OneTouch PCBA Interface Board from Zodiac (PN: B00251)

Supports Spill over Prevention, Chlorinator Reduction.

Number of Pool cover inputs Possible: 1

Sensor Input Location: Power Center, expansion board will be on the left behind the bezel assembly or in the low voltage raceway. Bottom 4 pin terminal block labeled Cover Pools

Menu Navigation: Menu->System Setup->Cover-Pools->

ChlorSync® by AquaCal AutoPilot

No additional accessories needed

Supports Chlorinator Reduction.

Number of pool cover inputs Possible: 1

Sensor Input Location: ChlorSync Power Center circuit board, bottom pair of set screw terminal block inputs.

Menu Navigation:

None. Chlorinator output reduced to 5% of setting when sensor circuit is closed.