

Watermatic®

Flow Cell Installation Instructions

⚠ WARNING

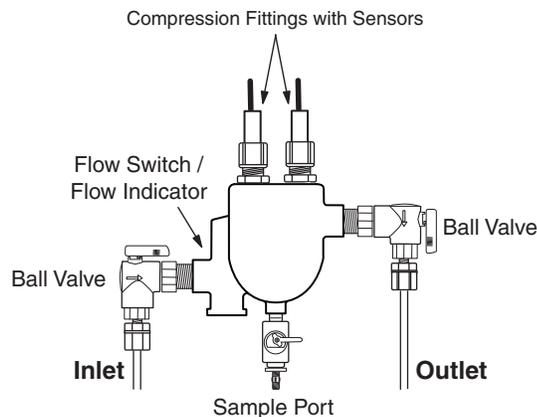
FOR YOUR SAFETY - This product must be installed and serviced by a contractor who is licensed and qualified in pool equipment by the jurisdiction in which the product will be installed where such state or local requirements exist. In the event no such state or local requirement exists, the maintainer must be a professional with sufficient experience in pool equipment installation and maintenance so that all of the instructions in this manual can be followed exactly. Before installing this product, read and follow all warning notices and instructions that accompany this product. Failure to follow warning notices and instructions may result in property damage, personal injury, or death. Improper installation and/or operation will void the warranty.

⚠ WARNING

RISK OF ELECTRIC SHOCK WHICH CAN RESULT IN SERIOUS INJURY OR DEATH. Before attempting installation or service, ensure that all power to the device is disconnected/turned off at the circuit breaker.

The Watermatic Flow Cell, designed for easy installation with a Watermatic controller, works with a variety of sensors and has an integrated flow switch/flow indicator. The flow switch requires at least 0.3 GPM to work properly. If the flow exceeds the minimum flow rate, the black piston in the flow switch chamber moves to the top, closes the switch and signals to the controller that the flow is at an acceptable rate.

Locate the flow cell within eight feet of the controller, mounted on a vertical surface with the lid on top. The flow cell must be plumbed so the pressure difference between the inlet (flow switch side) and the outlet is sufficient to ensure flow through the flow cell. If the 3/8" tubing provided is used, a minimum pressure differential of 3 PSI is required for proper flow. It is also desirable to have filtered water pass over the sensors to minimize cleaning.



Note: When removing and replacing flow switch, hand tighten, do not use tools.

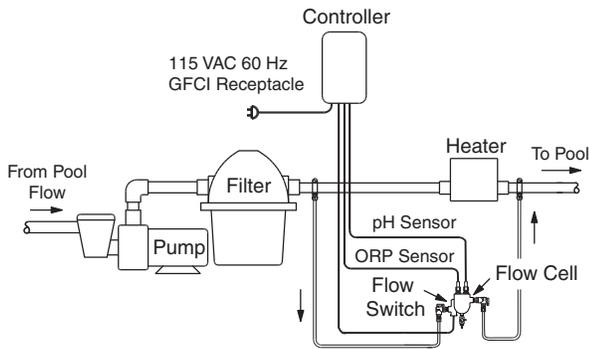
There are four suggested installations for the flow cell.

1. Plumb the inlet after the filter and the outlet after the heater. See diagram A at the top of the following page.
2. Plumb from after the filter to before the pump. This ensures excellent flow but the flow must be adjusted so the sensors are not subjected to a suction environment. See diagram B at the top of the following page. Open the sample port to verify that water is flowing freely from it.
3. Plumb from before the filter to after the heater, using an inline filter to minimize the possibility of debris coming into contact with the sensors. See diagram C at the top of the following page.
4. See diagram D at the top of the following page for systems using these Cal Hypo feeders.

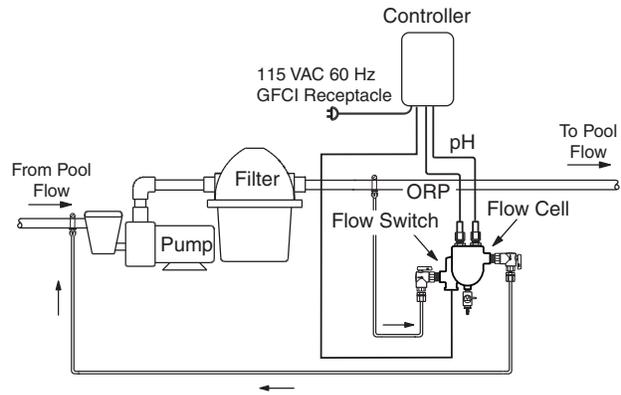
Be aware that solar systems and other factors can alter pressure differentials in a system, adversely impacting flow through the flow cell.

The flow cell comes fully assembled in the box. It is set up to use the provided 3/8" tubing, however other sized tubing or 1/2" hard plumbing can be used. To use an alternative to the 3/8" tubing, remove the 90° on/off valves and plumb according to the application.

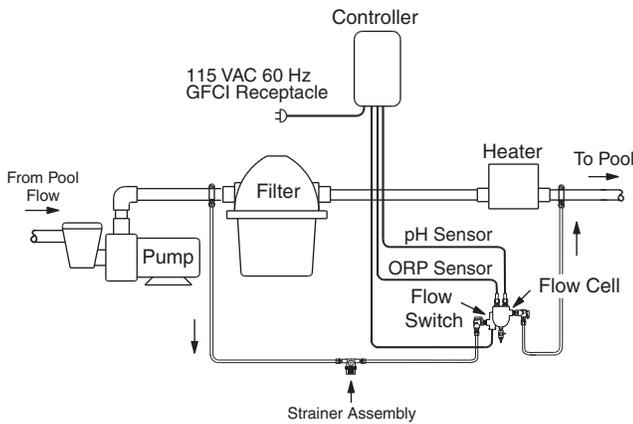
A. Pressure Differential Installation



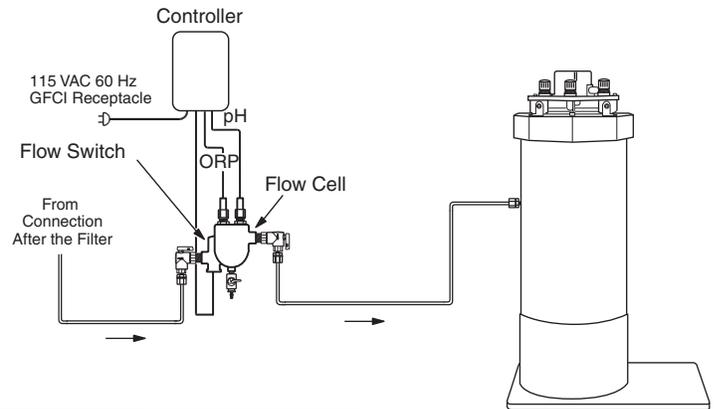
B. Pressure / Suction Installation



C. Pressure Differential Alternative Installation



D. G7500 (Discontinued) Granular Feeder Installation

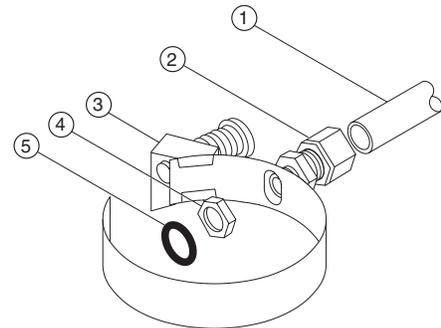


1. If using a saddle clamp, drill a 7/16" hole in the pipe on the pressure side of the pump. Insert the 1/8" compression fitting (#2) through the clamp (#3) and place the nylon jam nut (#4) onto the compression fitting. Slide the pipe seal washer (#5) onto the end of the compression fitting. Insert the completed assembly into the hole in the pipe and tighten the clamp. Test for leaks.

If the pipe is larger than 2" in diameter, two clamps joined together will be required per each hole.

If using a pipe tap, drill and tap a 1/4" NPT hole. Apply RTV silicone, teflon® stick or teflon paste to the threads on the compression fitting and screw securely into the pipe. Test for leaks.

2. Cut the tubing (#1) to the appropriate length. Slightly loosen the compression fitting in the pipe and insert the tubing into it. Take the free end of the tubing and insert it into the compression fitting on the flow switch side of the flow cell.
3. Complete the steps 2-5 for the return side of the flow cell. Use the appropriate remaining parts to complete this task. Take the free end of the tubing and insert it into the compression fitting on the outlet side of the flow cell.



Operating Tips

It is imperative that the system has proper flow past the sensors when the pool filtration system is on. If the controller is not equipped with the proper connection jack, an optional pressure switch should be used. A flow or pressure switch must be used with any system using peristaltic pumps.

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TL-439 Rev B

