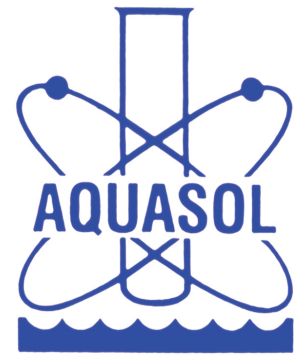




Care and Use of the *Aquasol* Chemical Control System



Aquasol WTC with *Stenner* liquid chlorine and muriatic acid pumps.

Aquasol WTC with Stenner chemical feed pumps

Overview

Your *Aquasol* system is designed to work just like a thermostat on an air conditioner. The probes constantly test the water for cl and pH levels, and send the readings back to the controller. The controller interprets the readings and activates the proper chemical pump when an adjustment is needed. There's nothing more to it than that. It's really pretty simple.

The *Aquasol* system is designed to help you eliminate many of the daily problems with the chemical maintenance of your pool or spa by simply helping to maintain proper chemical levels under rapidly changing conditions. With correct usage, that's exactly what it will do. This quick reference sheet contains some operating and maintenance suggestions that will help your *Aquasol* perform well. (for further details, please refer to your owner's manual, or call the factory at 800/444-0675 for assistance)

Daily Use

- 1) Don't over adjust! *Unnecessary adjustments will reduce the full benefits of automation.*
- 2) Make adjustments gradually. *When turning the main control dials to adjust your cl or pH levels, only turn them a maximum of 3 notches at a time.*
- 3) Check your chemical containers regularly. *It's best to verify chemical levels whenever you test the pool.*
- 4) Don't stop testing your pool! *Be sure to manually test your pool with a DPD type test kit at least once per day, or as required by your health department.*

Preventative Maintenance

Monthly

- 1) Check chemical injection points for clogs. *Liquid chlorine contains a lot of salt, it will "calcify" at the injection points and needs to be cleaned regularly. An acidic solution works well.*

Quarterly

- 1) Clean probes (mild detergent rinse, followed by acid rinse) and recalibrate machine.

Every Six Months

- 1) Replace feed tubes in chemical pumps.
- 2) Inspect all tubing connections.

Every Two Years

- 1) Test and replace probes (ORP = S010, pH = S020) as needed, replace BNC connectors (S094) when probes are replaced, or if they look corroded. BNC connectors are the piece that connects the probe cable to the controller at the bottom of the controller.
- 2) Replace relays (S041). The relays are located on the left hand side of the main circuit board, right next to the fuses.

Aquasol WTC System with Stenner pumps



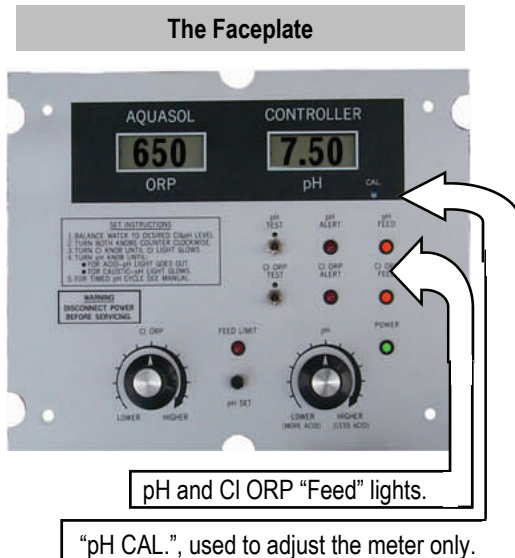
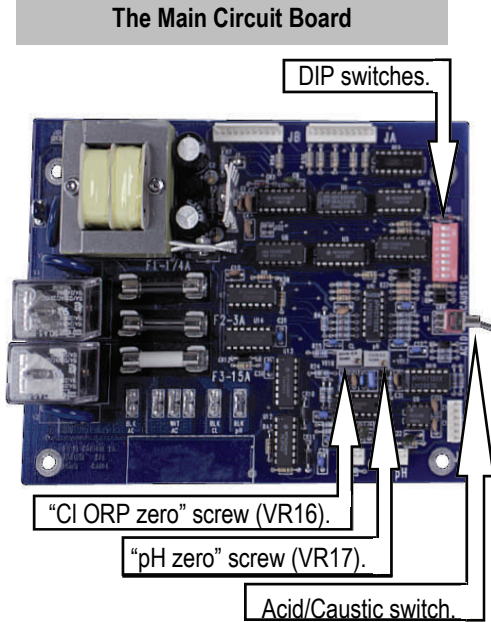
Always test your pool once per day



Calibration

- 1) Balance the pool or spa to the chemical levels you want to maintain. Make sure your alkalinity, pH, and cl levels are correct.
- 2) Unplug the chemical pumps from the controller.
- 3) Remove the faceplate by removing the four screws in the corners. Do not disconnect the wiring harnesses that attach the faceplate to the circuit board. Hang the faceplate in the notches on the clear cover. You should be able to see the front of the faceplate, and power should be on.
- 5) Turn the "Cl ORP" and "pH" dials on the faceplate to the 12:00 position.
- 6) Locate the "cl zero" and "pH zero" screws in the lower right hand quadrant of the main circuit board. They are labeled "VR16" (cl) and "VR17" (pH) on the circuit board, and look like tiny brass screws on top of small gray plastic boxes.
- 7) Make sure the "pH alert" or "Feed Limit" lights are not activated. If they are, unplug the controller and then plug it back in to clear the alerts.
- 8) Look at the "pH Feed" light on the faceplate. If the light is *not on*, turn the corresponding "pH zero" - VR17 screw on the circuit board counter-clockwise with a very small screwdriver until the light just comes on, and then turn the screw back just a bit until it goes out. If the light *is on*, turn the screw clockwise until it just goes out. The point where the "pH Feed" light is just coming on or going off when you turn either the screw or the dial on the faceplate is the spot you are trying to find. You may have to turn the screw several times before the light comes on. It can go up to about 30 turns in each direction.
- 9) Repeat the above process, except on the chlorine side, look at the "Cl ORP Feed" light on the faceplate, and turn the "cl zero" screw labeled VR16 on the circuit board.
- 10) If the pH reading on the digital meter does not match the reading from your test kit, you may turn the small white screw just beneath the pH meter labeled "pH Cal." to adjust it. This only adjusts the reading on the meter and does not effect the feed point. The ORP meter can't be adjusted.
- 11) Plug the chemical pumps back into the controller.

NOTE: DIP switch number 3 on the main circuit board should be the only DIP switch in the "on" position, and the "Acid/Caustic" switch should always point down to "Acid."



Probe Testing

If you suspect that you have a faulty probe, perform the following test:

Connect the probe to be tested (ORP or pH) to the cl/ORP probe connector (BNC Connector) on the bottom of your controller.

Get two cups (about 8 oz.) of pool water. Add several drops of muriatic acid to one cup.

The ORP electrode should read somewhere between 650 and 850 mv when put in pool water. When moved to the "acid" water the millivolt reading should increase by about 200 mv (at least).

The pH electrode should read -25 to -100 mv in the pool water. When put in the "acid" water the millivolt reading will change about 100 mv or more to the positive. Example: Pool water reading is -40 mv, "acid" water reading should be about +60 mv.

If the probes respond as above, they're good. If not, it's time to replace them.

Troubleshooting

For troubleshooting assistance, please call our technical support department at 800/444-0675. We are generally able to solve most problems over the phone and will walk you through the diagnosis process. There is no charge for this service.