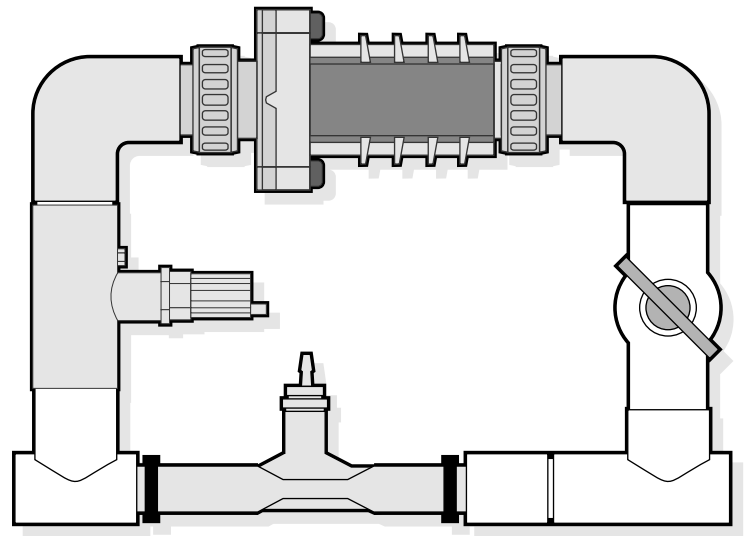
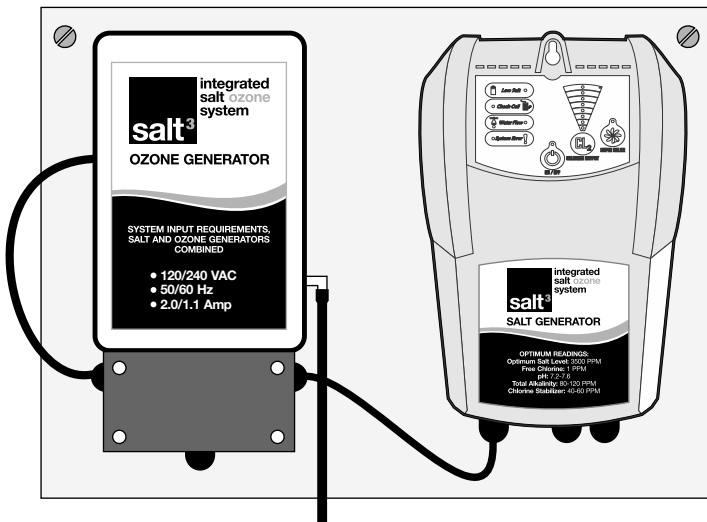




# integrated salt ozone system



# Installation and Operating Manual

## MODEL SALT340A

# 1. Important Safety Instructions









## Read and Follow All Instructions

All electrical work must be performed by a licensed electrician and conform to all national, state, and local codes. Improper use or installation can badly harm the unit and its surroundings.

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

### **DO NOT OPEN THE SEALED COVER OF THE SALT POWER SUPPLY**

#### **– NOT A SERVICEABLE UNIT**

- Power must be shut off at the circuit breaker before performing any wiring. Be sure to follow Local and NEC electrical codes. To provide safe operation, the power supply must be properly grounded and bonded.
-  ● **WARNING – To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.**
- The Power Supply must be mounted **vertically** on a flat surface and at a minimum horizontal distance of 5 ft (1.5m) (or more, if local codes so require) from the pool/spa.
-  ● **WARNING – Risk of Electric Shock. Connect only to a branch circuit protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the circuit is protected by a GFCI.**
-  ● **WARNING – The Power Unit comes with a prewired junction box which is connected to a power source, which will turn the pump and Power Unit on and off together. As all individual wiring set ups are unique, have the Power Unit wired to the load side of the external timer or automation box by a qualified person. It is very important that the power supply is only powered when the pump is running.**
-  ● **WARNING – To reduce the risk of electric shock, replace damaged cord immediately.**
-  ● **WARNING – The wiring of the unit must be performed according to the wiring instructions of this manual.**
-  ● **WARNING – A build-up of flammable fumes can result in a hazardous condition if the cell is allowed to operate without flow. This device must be operated only with the inline flow sensor provided.**
-  ● **WARNING – Ensure that equipment and materials used in or around the pool and spa are compatible with salt-based sanitation systems. Certain materials may be susceptible to salt and chlorine damage.**
- ALWAYS ADD ACID TO WATER, NEVER WATER TO ACID.
-  ● **SAVE THESE INSTRUCTIONS.**

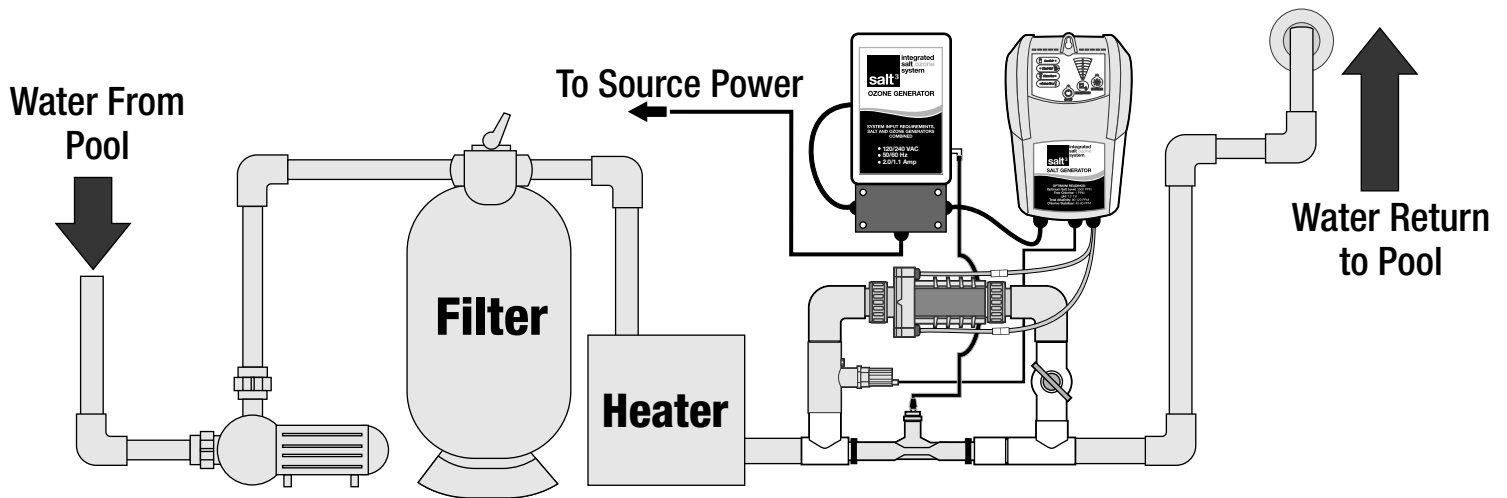
## **IMPORTANT!**

### **ADD SALT TO THE POOL BEFORE STARTING INSTALLATION**

Adding the salt to the pool water **BEFORE** starting the salt system is required. The system could show error lights on the power supply if there is no salt circulating in the pool water for several hours before starting the system.

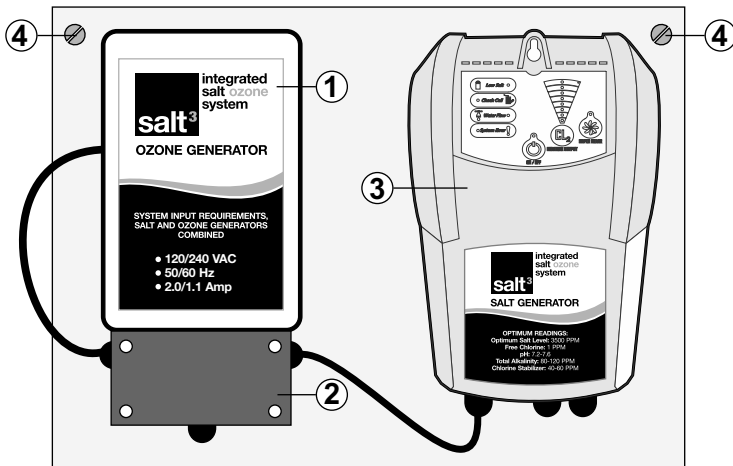
The “Low Salt” light may remain lit for up to 24 Hours until salt is fully dissolved in the water.

# SYSTEM OVERVIEW



## SPECIFICATIONS

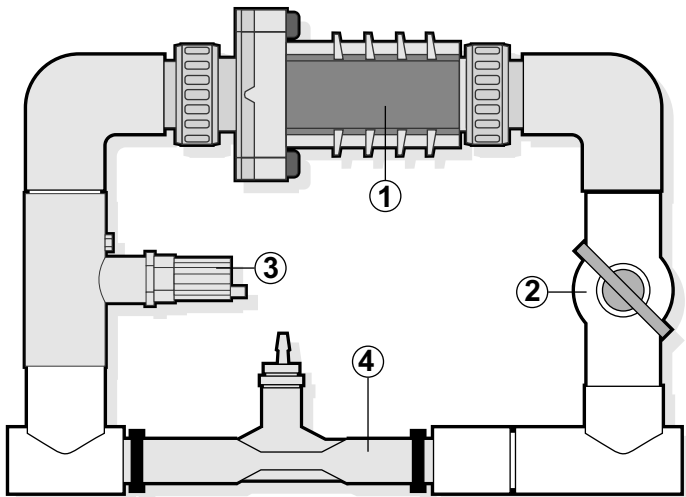
PVC Pipe connections: 2 inch PVC pipe  
 Input Power: 120/240VAC 60Hz (US);  
 Power Consumption: 100-240 Volt; 50/60Hz; 2.0/1.1 Amp  
 Maximum Operating Pressure: 50 psi  
 Operating Flow Range: 20-100 gpm



## Generator Assembly

1. Ozone Generator
2. Wiring Junction Box
3. Salt Generator Power Supply
4. Predrilled Mounting Holes

**MOUNT VERTICALLY ON WALL CLOSE TO EQUIPMENT AND POWER.**

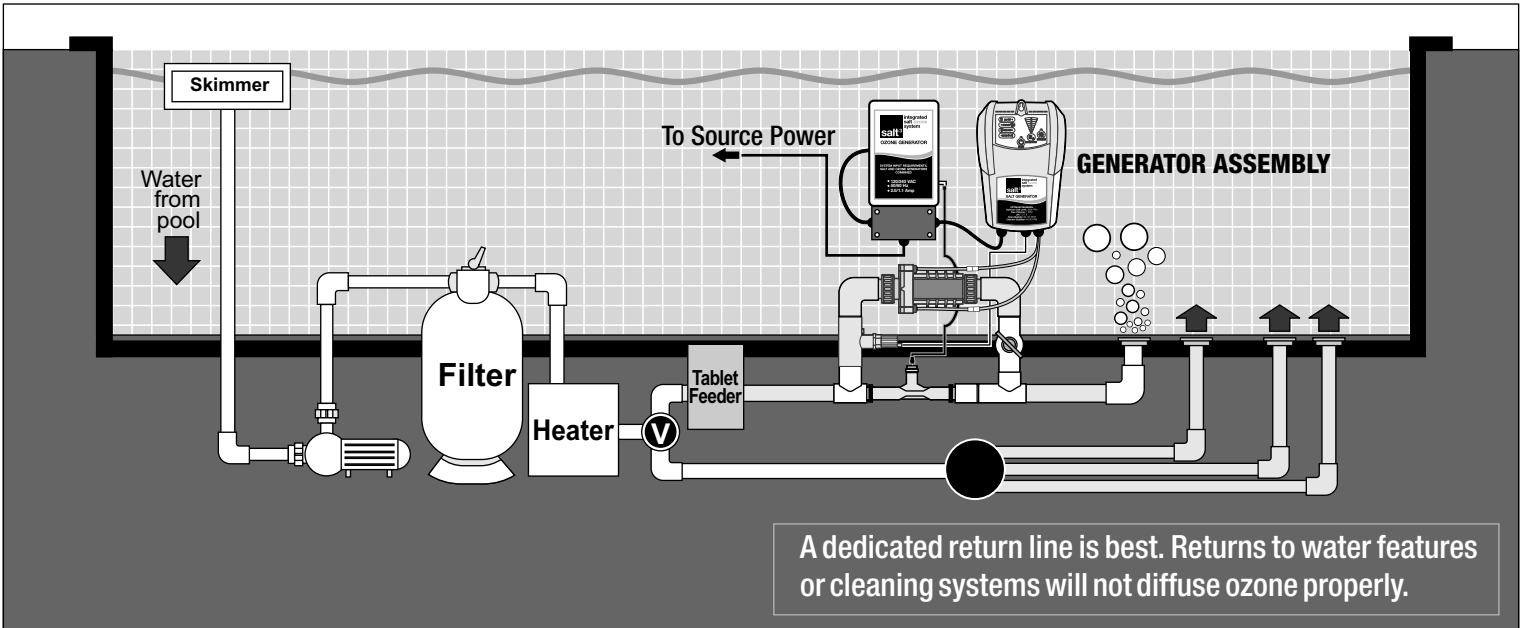


## Manifold Assembly

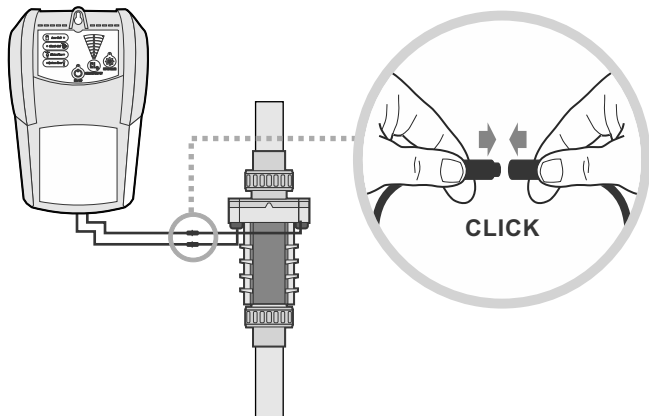
1. Salt Cell
2. Ball Valve
3. Flow Switch
4. Venturi Injector

**MOUNT HORIZONTALLY AS SHOWN AFTER ALL OTHER EQUIPMENT**  
*(see page 4)*

# PLUMBING

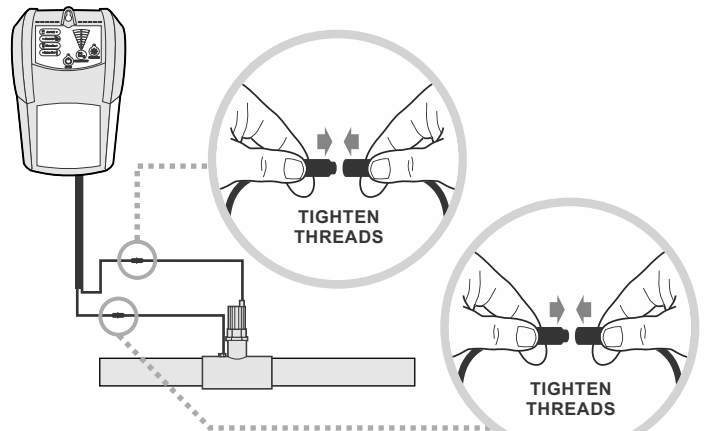


# CONNECT SALT CELL AND FLOW SWITCH



### Wiring the cell.

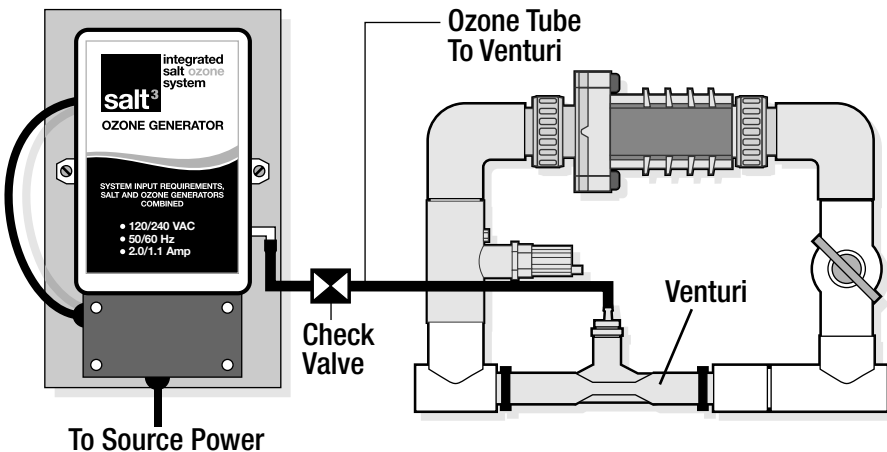
Connect the two black wires from the Power Supply Box to the two Quick-Connects on the sides of the Cell. Ensure the connections are perfectly clean of any debris.  
**Note: these wires are interchangeable.**



### Wiring the Flow Sensor

Find the sensor cable from the Power Supply with the 2 small connect terminals and push them on their respective connectors on the Flow and Temperature sensors. Polarity DOES NOT matter.

# CONNECT THE OZONE TUBE



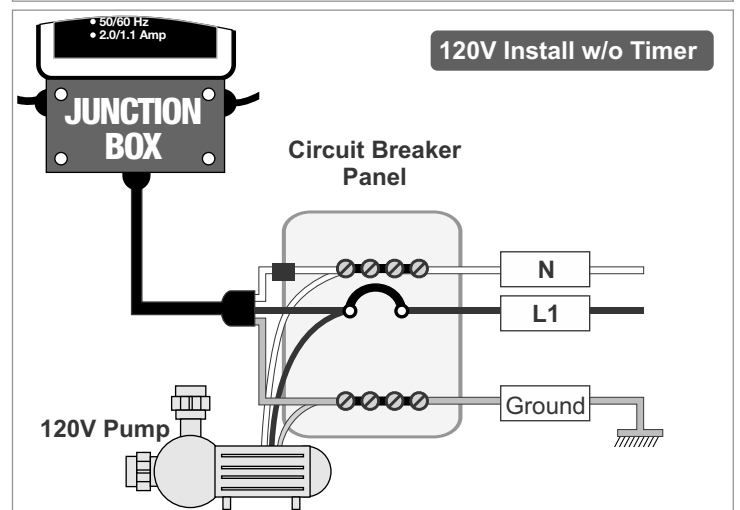
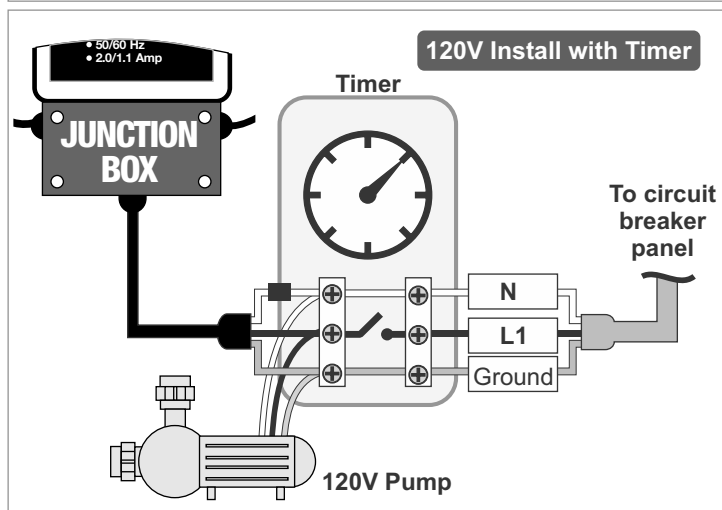
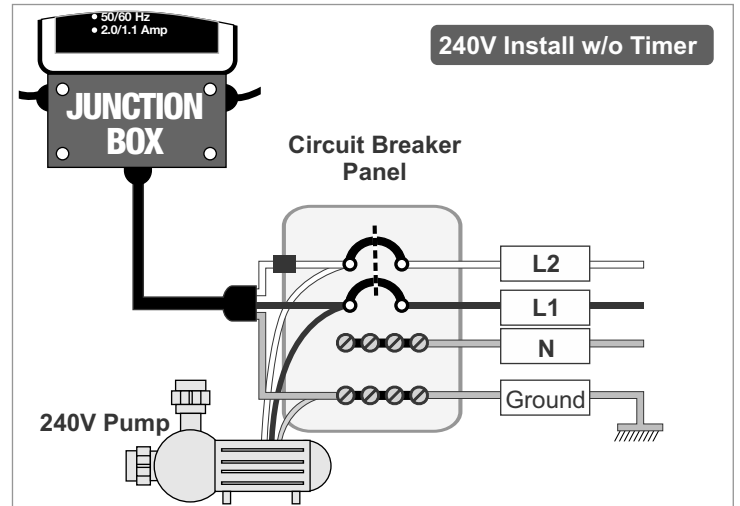
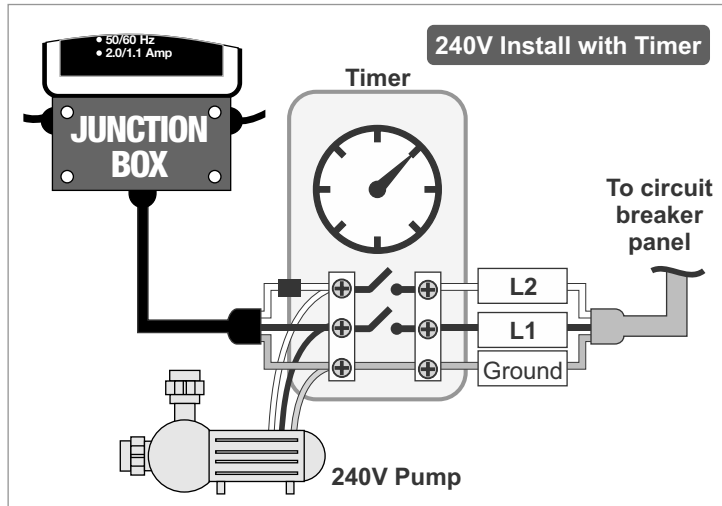
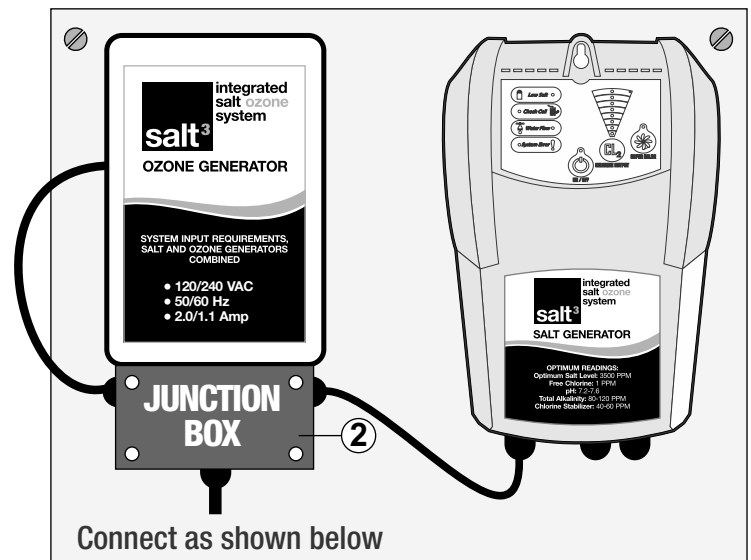
Push the tube section onto checkvalve barb securely and push other end onto barb fitting onto venturi. Push against stop.

# ELECTRICAL CONNECTIONS

## Install the Generator Assembly

1. The Generator Assembly must be mounted vertically on a flat surface and a minimum of 5 ft (1.5m) horizontal distance (or more, if local codes require) from the pool/spa.
2. Locate a position for your Box within 8 ft of where the Manifold Assembly will be installed
3. Do not block the four sides of the Control Box. Do Not mount the system above a heater or inside a panel or an enclosed area.
4. If possible, try to mount the Assembly out of direct sunlight.

## Wall Mounted Generator Assembly



## Wiring the Power Supply Box

1. Connect the green wire to the Ground lug of the timer.
2. Connect the black Load wire from the chlorine generator to Load 1 of the time clock.
3. If wiring a 240 Volt system, connect the white wire with black shrink to Load 2 of the time clock. If wiring a 120 Volt system, connect the white wire with black shrink to the Neutral lug on the timer and REMOVE the black shrink tube.

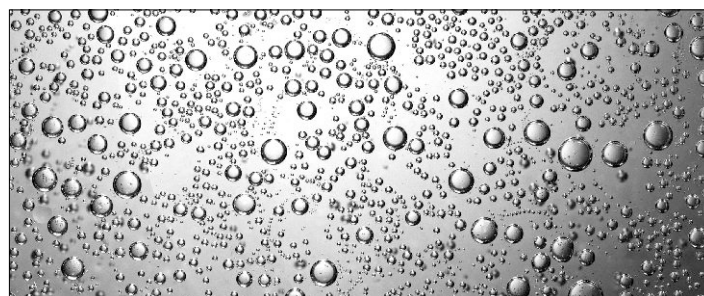
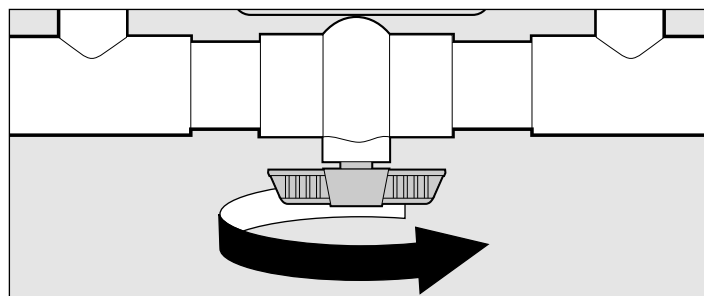
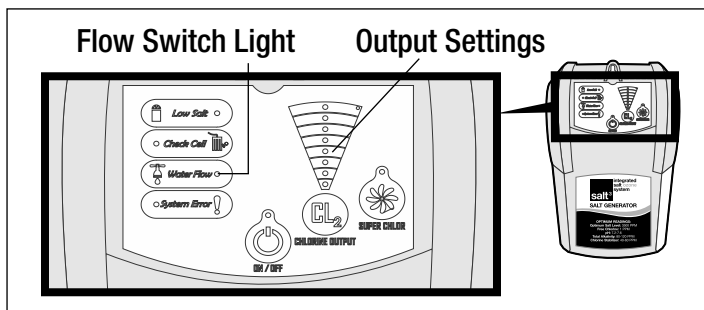
# EQUIPMENT STARTUP

## IMPORTANT: ADD SALT TO POOL WATER BEFORE STARTING INSTALLATION

Adding salt to the pool water BEFORE starting the Salt3 system is required. The system could show error lights on the power supply if there is no salt circulating in the water for several hours before starting the system. The “Low Salt” light may remain lit up to 24 hours until salt is fully dissolved in the water.

## IF USING A VARIABLE SPEED PUMP, MAKE THE ADJUSTMENTS BELOW WITH THE VSP SETTING MOST COMMONLY USED (USUALLY ABOUT 2500 RPM) FOR FILTRATION CYCLE.

## AFTER EQUIPMENT IS INSTALLED, START THE PUMP WITH THE BALL VALVE CLOSED 90% TO TRIGGER FLOW SWITCH LIGHT ON SALT GENERATOR POWER



1. The salt generator power supply will light up. Adjust output setting to 3 lights to show output level.
2. The flow switch light will remain on.
3. Open the ball valve incrementally until the flow switch light goes off. There is a delay of 5-10 seconds before the flow switch light goes off so turn handle a little and wait to see when light goes off. If not, turn a little more. When the light goes off, that is the correct setting.
4. Smaller bubbles are best. After flow switch light is off, check bubbles and adjust valve handle a little more until bubbles are as small as possible.
5. Check venturi suction. Pull the ozone tube off the venturi on the manifold and place finger over the barbed opening. There should be a noticeable pull to indicate suction is present.

# INITIAL WATER TREATMENT

## **IMPORTANT:**

Before starting equipment, test the water as you would with any pool to balance the water (to estimate the number of gallons in your pool, go to [www.poolchemicalcalculator.com](http://www.poolchemicalcalculator.com))

-Total Alkalinity: 80-120ppm

-pH: 7.2-7.6

-Calcium Hardness: 200-400 ppm

-Copper: less than .4 ppm

**ACTIVATE EQUIPMENT:** Turn on equipment so water is circulating TO THE POOL.

**TREAT POOL WATER:** You will need to establish a low chlorine residual (0.5 - 1.0 ppm)

**IMPORTANT!!** Run the entire system (pump, filter and oxygen generator) CONTINUOUSLY FOR 48 HOURS OR LONGER UNTIL THE POOL WATER IS PERFECTLY CLEAR

## **MISCELLANEOUS:**

-Remove any fountain attachments on the pool return fitting. Oxygenated water must be injected directly into the water. It will lose its effectiveness if a fountain fitting is used.

-Rotate the return fitting inside pool so it facing on a 45 degree angle pointed down and to one side to create a circular flow to the water inside the pool and so the oxygen bubbles are pushed lower into the water.

# OPERATION

- **Run System 8 hours daily at 2-3 LED lights on Salt System**
- **Maintain low chlorine level of up to 2-3 ppm**
- **Test water weekly**
- **Take water sample to dealer monthly**

# MAINTENANCE

## 1. Maintenance Instructions

It is important to constantly monitor the salt level in your pool for the system to work as efficiently as possible.

The cell should be monitored monthly to make sure calcium buildup is properly addressed.

Depending on the water quality and hardness, some systems will have to be cleaned more often.

## WINTERIZING

Just like the pool plumbing, freezing may damage the system's components. If severe or extended periods of freezing temperatures are possible, drain all water from the pump, filter, cell and supply and return lines before any freezing conditions occur.

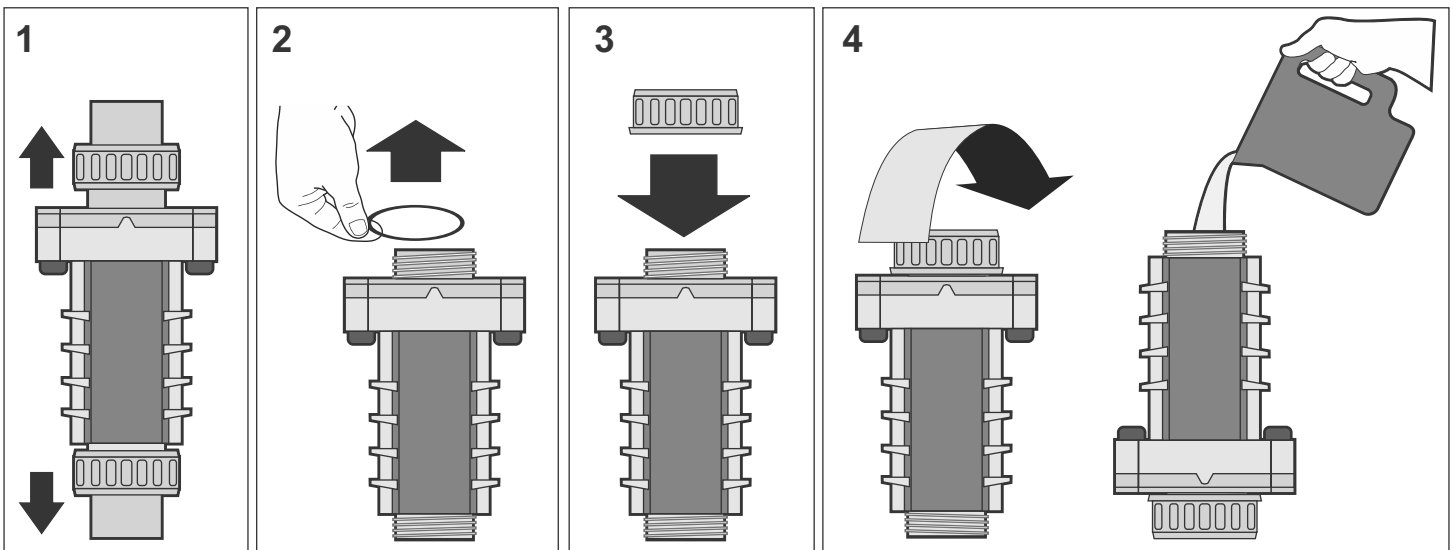
## 2. Cell Cleaning

**CAUTION:** Do not use metal or other hard objects to clean the cell. Do not insert anything into the cell. Both of these actions could scratch the precious metal coating on the plates and void the warranty.

**CAUTION:** Always add acid to water, NOT water to acid.  
Diluted muriatic acid solution = 1 part acid to 4 parts water  
**Note:** Follow the instructions of the acid manufacturer.

### Cleaning with Cleaning Cap.

1. Remove the cell from the line by unthreading the barrel unions from the cell ends. There is no need to remove the electrical wire connections when using the cleaning cap.
2. Remove the black O-ring on one end of the Cell.
3. Attach the Cell Cleaning Cap to the other end of cell.
4. Pour into the Cell, either undiluted white distilled vinegar, or a solution of diluted muriatic acid (one part muriatic acid to 4 parts water). **Always add acid to water; do not add water to acid!**
5. Wait for foaming to stop (5-10 minutes when using muriatic acid; vinegar takes longer).



**6. Safely dispose of the acid solution by pouring it into your pool.**

7. Rinse the cell with water hose.

8. Put the O-ring back in place and re-install the Cell in the line.

9. If the cell cable connectors were removed make sure they are clean and free of debris and re-connect them.



# TROUBLESHOOTING AND FAQ

## How long should the system be run?

Run pool equipment and oxygen generator a minimum of 8 hours daily, during daylight hours. Running the system longer will provide even better quality water. Running the system continuously will provide the highest quality water possible.

## How do I know the Oxygen Generator is working?

- The LED light on the bottom of the generator is illuminated.
- There are small bubbles entering the pool through the return.

## The light on the bottom is not illuminated of the Oxygen Generator:

- Plug should be wired into GFCI source power. Check to make sure the breaker and outlet are in good working order.

## The light is on but there are no small bubbles entering the pool.

- Check to make sure the filter and pump are working properly. If filter is dirty, clean filter and restart.
- Check suction at venturi as indicated under "EQUIPMENT STARTUP" on page 6

## How Often should I test my Water?

- Weekly AT HOME,
- Swimming Pool Store Professional Lab Test monthly.

## My Pool Looks cloudy or green.

The system is designed to maintain and keep your pool looking and feeling great. If there is a problem and the pool becomes dirty the Salt 3 system can correct the problem.

- Check filter and pump to ensure water is circulating properly. Clean filter if necessary.
- Make sure light on bottom of Oxygen Generator is on and bubbles are entering the pool via the returns when system is on.
- Run system for 48 hours on "Boost". This happens when you press Boost button which shocks pool

## Can I use additional chemical products?

Yes, the system is designed to work with most chemicals, including chlorine, that make your pool feel and function best for you.

**IMPORTANT: DO NOT USE THIS SYSTEM WHILE USING BIGUANIDE PRODUCTS IN YOUR POOL. BIGUANIDE PRODUCTS ARE NOT COMPATIBLE WITH ANY OTHER POOL CHEMICALS AND MUST BE REMOVED FROM THE WATER BEFORE STARTING ANY OTHER WATER TREATMENT PROGRAM. DO NOT USE WITH BROMINE BASED SANITIZERS.**

## Can I use a return fountain while using the Oxygen Generator?

No, the bubbles of Oxygen should stay in contact the water to be effective. The longer the bubbles are in the water, the better the system is working. Aim the returns down and out so that the bubbles stay in the water as long as possible to be the most effective.

## My filter seems to be getting dirty quickly?

The nature of using a Salt 3 based water treatment program means that more organic and inorganic materials are oxidized and broken down compared to other systems. This means more impurities will be filtered out and therefore the filter media is working better. The Salt 3 System may increase the need to clean the filter.

**TECHNICAL HELP LINE 561-455-0252**