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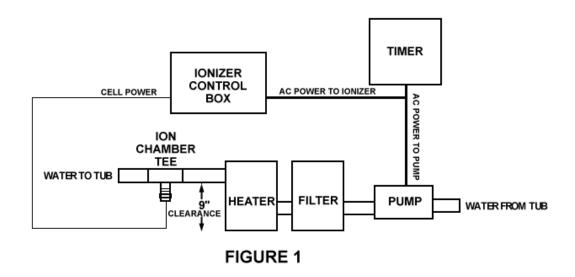
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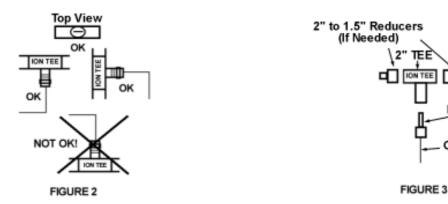
Saunas, Steamrooms, and Swimming Pool, Spa & Hot Tub Equipment

ALMOST HEAVEN WATER PURIFIER - SPA AND HOT TUB MODEL INSTALLATION & OPERATION INSTRUCTIONS

The electronic Almost Heaven Water Purifier System eliminates the need for using chlorine or bromine thus avoiding the inconvenience, odor and hazards of halogen sanitizers. Before installing the Almost Heaven Water Purifier, the spa or tub and its filter should be clean, pH balanced and oxidized. Always add a tablespoon of the shocking agent supplied with the unit after every fresh fill.

- 1. Turn off the power to the equipment.
- 2. Install the TEE into your plumbing system. If your Water Purifier is being supplied with an Almost Heaven System, refer to the appropriate section in that product's manual for placement of the electrode TEE. If this installation is for an existing tub or spa, it is ideal to install the TEE after the pump and heater and as close to the tub or spa as possible. If it is not possible to install the TEE after the pump and heater, it is still suitable to install it before them. See **FIGURE 1**.
- 3. The electrode cell must be at the bottom or side of the TEE, so that no air will be trapped in the cell. See **FIGURE 2**. Make sure there is 9" clearance to allow removal of the electrodes before installing the TEE. If you have 1.5" pipe, you will use reducers, but if you have 2" pipe, you can glue the TEE in directly. See **FIGURE 3**. Cut out a 2.75" section of pipe where the electrode cell will be installed (or cut a 3.5" section if using the reducers for 1.5" pipe). Glue the TEE in place using PVC glue. The black line on the cell must always be inline with the water flow. If you are not sure how to install the cell you should have a spa contractor do it for you. **NOTE: If you are gluing your TEE into flexible PVC, DO NOT USE PRIMER to prepare the joint.** Flexhose is softer than rigid PVC and the aggressive primer will eat through it. Instead, use a **CLEANER** designed for flex.
- 4. Mount the controller on a wall or spa cabinet insuring that the ion cell is within reach of the cell power cord. Remove the four screws in the face of the control box, which will reveal four internal sleeves for the mounting screws. Drop the four #8 x 3/4" mounting screws provided into these sleeves. Slide a screwdriver into each sleeve to fasten the controller to a wall or the spa cabinet so that the cell power cord will reach the cell. It is best to install the controller where it is protected from the sun and weather. Please note that if the cell power cord must pass through a small hole in a wall or the skirt of the spa, it will have to be disconnected and reconnected inside the controller, which is easy enough to do. Please contact Almost Heaven for details.
- 5. The ionizer control box should be spliced into the AC power to the circulating pump so it is on only when that pump is running. See **FIGURE 1**. If your system is from us, again, please refer to the appropriate section in that manual for specific details on making the electrical connections. If you do not have one of our systems, and you have a two speed pump that circulates your water with the slow speed controlled by the timer, then you should splice the controller AC power into the slow speed of the pump, and you should also make certain that the ion chamber TEE is installed into a line through which water flows when the pump is running on slow speed. The power supply is auto sensing and can be connected to either 120 or 240 volts AC. The AC power is connected to the power cord as follows: the black wire is the hot wire; the white wire is the neutral wire if 120 volt, or the other hot if 240 volt; the green wire is the ground. A licensed electrician should perform the wiring if you are not sure how to wire the AC power.





ALMOST HEAVEN WATER PURIFIER OPERATION

Electrodes

Cell Power

Mostly all of our competitors recommend that you shock your spa or tub with chlorine weekly, but most of our customers want to avoid the hazards and odors of chlorine, so we provide the starter supply of potassium peroxymonosulfate oxidizer for this purpose. When you need more oxidizer, you'll find it at any pool and spa store. It's available under a wide variety of trade names (perhaps with a slightly different chemical name), is faster acting and won't offend your nose and skin like the chlorine. We believe it's also gentler on your electrodes, too. Always begin by shocking a fresh fill with about a tablespoon of this oxidizer.

- Turn the power on to the spa equipment.
- 2. Test the spa water with the copper test kit to see if there is copper already present in the spa. If copper is already present it may be from a copper based algaecide or from a previous pH problem, and in such a case, draining and refilling the spa is recommended. NOTE: If your spa is made from concrete or gunite, the sanitizing ions have been known to stain certain newly applied pool type finishes. Such a newly finished spa should be permitted to cure completely before the ionizer is connected.
- 3. Turn on the circulating pump and turn the controller output to MAX. Switch the controller power to ON. The power light and the cell power light should come on. Turn the output control to MIN and the cell power light will go out in a few seconds. Turn the output control back to MAX and the cell power light will come back on. The cell power light will change color from green to red regularly as the polarity to the cell changes. The cell power light is on when the cell has power. Turning the control down decreases the percentage of time the cell has power from 100 to 0%.
- 4. Turn the circulating pump off and make sure the controller power turns off also. Turn the circulating pump back on and set the timer so that it will run continuously for at least 12 to 24 hours. Make sure controller power comes back on.
- 5. After 12 to 24 hours test the spa water with the copper test kit. If the reading is less than 0.4 ppm continue running the circulating pump continuously and check the copper level every 12 hours or so, until the level is at least 0.4 ppm. Once the reading is between 0.4 and 0.8 ppm, set the circulating pump timer to your normal setting and maintain 0.4 to 0.8 ppm copper level by adjusting the output control on the controller. You will automatically have the proper levels of silver and zinc if your copper level is correct.
- 6. Now you can stop using chlorine! All you need to do is add a non-chlorine oxidizer to your water about once or twice a week, or any time the water begins to cloud. Once you've used the supply provided with your unit, see your local spa dealer for more.
- 7. Test the ion level at least once a week until you have found the proper setting for your spa. Now, if your bathing is fairly consistent, you should only need to test the ion level once or twice a month because the ion level does not dissipate like other sanitizers.

If you have a hard time getting enough of an ion level, make sure the setting is on MAX, the water is clear and oxidized, the pH balanced, the filter is clean, and the electrodes not worn out. Then increase the circulating pump run time. Do not over ionize your spa. If the ion level goes over 0.8 ppm turn the ionizer to MIN until the level drops to 0.4 ppm. Once a year, unscrew the ion cell, inspect the electrodes for wear, and clean them with a stiff brush. Replace the electrodes when they are just small stubs. Install new Teflon tape or silicone to the threads before reinstalling. Ensure that the electrodes are installed so that the black line is in line with the water flow.

Keep these instructions in a safe place.

DO NOT USE A STAIN & SCALE PREVENTER in your tub or spa if you are using the Water Purifier. Stain & Scale Preventer is only ever needed if you have water from a well with high concentrations of metal, lime, etc. Although Stain & Scale Preventer is designed to sequester ions of iron and calcium, it will also do so to the copper, zinc and silver. If you have a serious staining and scaling problem, it should be treated at the point where the water enters the home so as to protect all the other plumbing and fixtures in the house.

NOTE: The Water Purifier is a sanitizer and replaces the need for chlorine. It does not preclude the need to keep the water balanced nor does it provide the oxidation necessary to keep the water fresh. Balance the spa or tub's water with the standard chemicals intended for this purpose and shock the water occasionally with the Non-Chlorine shocking agent supplied with the Water Purifier. The average dose for normal usage is about 1 tablespoon (½ ounce) once per week.