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# POOL ENVIRONMENTS, INC.

## INSTRUCTION MANUAL / TROUBLE SHOOTING GUIDE

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7 days a week 7:00 am to 10:00 pm, if you do not receive a call back in 20 minutes, please call  
again. Thank You.

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## INSTRUCTION MANUAL / TROUBLE SHOOTING GUIDE

### POOL HEATING INSTRUCTIONS (IntelliTouch Computer)

- On indoor panel filter pump must be on.

- If there is a green light next to POOL it is on.
- If the green light is not on, press the button next to POOL
- To activate heater:
- Press the button below HEAT
- Adjust the desired temperature using the corresponding up or down keys.
- Pool MODE will show off.
- Press the corresponding key to toggle OFF to HEATER.

**NOTE:** *Once you are back to the main screen you should see a “flame” in the left corner of the POOL box. It will be animated while the heater is firing.*

(If you are trying to heat the pool daily in any automated manor contact Pool Environments for programming instructions.)

During normal operation, water is drawn from the pool main drain and skimmers into the pump suction, forced through the filter. Through the heater and back into the pool through the adjustable eyeball inlets located on the pool sidewalls.

**NOTE:** *If you do not want your pool heat activated, make sure it is turned to off.*

If you have any questions always feel free to contact our office for further detailed instructions.  
972-985-1576

## **BACKWASHING**

If your pool has been equipped with a D.E. filter, it should be backwashed approximately every two months or when the pressure registered on the gauge reads 10 P.S.I. OVER the normal running pressure. This pressure may vary from pool to pool (typically 19 to 24 p.s.i.). Backwashing cleans out the filter by reversing the flow of water in the chamber. The resulting dirty water is run into the sanitary sewer system. Your pool’s normal operating pressure is ( \_\_\_\_\_ ) p.s.i. and the backwash is 10 p.s.i. over normal operating pressure.

### 1. Backwashing Operation

- a. With computer at outdoor panel, go to time out. (Wait for everything to turn off approx 20 sec)
- b. Rotate the backwash handle to point to backwash.
- c. Press the “F” filter button. On the filter pump press the speed “4” button then start/stop button.
- d. Let pump run for approximately 1 minute, or until the water starts to clear in the sight glass.
- e. Turn the pump off . Using the start/stop button previously mentioned.
- f. Rotate the backwash valve to filter.
- g. On the filter pump press the speed “4” button, then the stop/start button.
- h. Let the pump run for 10 seconds, then turn the pump off.
- i. Repeat steps B through F at least four times.
- j. Add required amount of D.E. to the nearest skimmer.

-Add (6 to 8) one-pound coffee cans or a container of the approximate size, of D.E. after backwashing.

**CAUTION: NEVER** rotate the backwash handle valve while the pump is running.

## **SPA OPERATION**

1. On indoor panel push spa button.

2. To adjust the temperature, press lower button under HEAT and adjust temperature using up and down keys and you MUST press the SET button to save selected temperature.

**NOTE:** *If you would like to use the spa without heat, adjust the temperature lower than the current water temperature. The heater will not fire.*

#### **TO TURN SPA OFF**

1. Press the spa button on the indoor control panel.

#### **TO CLEAN THE SPA**

1. On the Outdoor Panel press MODE button twice to go to time out, select spa drain by pressing the “V” button until light appears beside DRAIN. Press the “F” filter button on the outdoor panel. Open the access panel on the top of the filter pump motor, press “speed 4” button then press the start/stop button.

2. Begin brushing the dirt in the spa towards the drain.

**NOTE:** *DO NOT ALLOW THE WATER TO DROP BELOW THE SPA LIGHT.*

#### **TO FILL THE SPA**

1. Outdoor Panel will already be in time out, select spa fill by pressing the “V” button until the light appears beside FILL.

2. On the outdoor panel press the MODE button once to return to auto mode.

#### **LOWER WATER LEVEL IN THE POOL / ONLY IF APPLICABLE**

1. Water level may be lowered by using the backwash method. Please refer to the backwash instructions on page 2.

2. If you do not wish to use the backwash method, you may attach a garden hose to the hose bib located on the pressure side of the pump. Open the valve to then allow the water to flow through into the yard.

***Pump Must Be Running.***

#### **HAIR AND LINT STRAINER BASKET**

1. On the Outdoor Panel press MODE button twice to go to time out.

2. Close the pool main drain valve & each skimmer.

3. Loosen lid holding the hair and lint strainer basket lid in place.

4. Remove the basket and remove trapped material.

5. Replace the basket and lid. **DO NOT OVERTIGHTEN.**

6. Reverse step 2.

7. Press the “F” filter button on the outdoor panel. Open the access panel on the top of the filter pump motor, press “speed 4” button then press the start/stop button.

8. After the prime is successful press the start/stop button to turn the pump off and return to auto.

9. Return to auto by going to outdoor panel and pressing the MODE button once to return to auto mode.

**NOTE:** *The hair and lint strainer basket collects and holds material which either sifts through the skimmer baskets or is swept into the main drain. As it fills, the pump must work harder to circulate the pool water. In yards with a severe leaf problem, check the strainer basket daily in the spring and fall as well as after emptying the skimmer baskets as leaves will find their way around the basket as it is lifted. Lubricate the O-Ring on the strainer lid regularly.*

**VERY IMPORTANT: Be sure the proper gas pressure and flow to your heater are to the manufacturers specifications.**

- a. Save the literature for these units. It is full of good tips for your particular unit.
- b. Check the finger strainer located at the wall fitting weekly.
- c. "Rotate" the whip hoses 1/4 turn every month to distribute wear and extend the life.
- d. Clean the collection bag regularly. Dirt and leaves are heavy and can cause the unit to work harder and inefficiently. Clean daily in yards with heavy tree poplution in spring and fall.

**NOTE:** *During the winter months, your cleaning system will not operate as efficient due to the cold weather.*

1. Automatic Cleaning System
2. Tile- Clean with Bonami/Comet or Baking Soda using a sponge, brush or Rag.
3. Lights- The lights are designed to cool by surrounding water and will burn out quickly if operated above water. **NEVER** turn the lights on if they are above or out of the water. Disassemble at least twice a year for inspection and cleaning. See preventative maintance for cleaning information. (Some systems may need quarterly cleaning)
5. Lubrication of Components- The rubber seals and gaskets throughout the equipment should be lubricated regularly with "Aqua-Lube" or other lubricants designed for application to rubber under water. Seals or "O-Ring" gaskets are found in the following location: (See preventative maintance for cleaning details)
  - a. Hair and lint strainer lid.
  - b. Backwash "T-bar" valve. Most pool owners will only be able to lubricate the vertical shaft which slides into the valve. Other gaskets inside should be lubricated by your serviceman if any leaks develop.

**PREVENTATIVE MAINTENANCE PROGRAM:**

*(This is vital for proper operation & equipment life expectancy)*

Pool Environments Inc. recommends a semi-annual maintenance program to your pool equipment.

Services included in this program are:

1. Inspect pad equipment for leaks or wear.
2. Lubricate pump, filter and backwash o-rings.
3. Disassemble filter and clean filter grids.
4. Check pool chemistry.
5. Check heater operation.

A full inspection report is done and a follow up call is made by our office to you concerning any questions. This service is recommended to ALL pool owners, as a regular maintenance program keeps your equipment in prime condition during the summer months and the freezing days of winter. Please call our office at 972-985-1576 for further details.

**POOL PROTECTION DURING FREEZING WEATHER:**

Your pool is equipped with a freeze-prevention switch. This switch operates during freezing weather by overriding the time clock, thus turning the pool pump on. The resulting water circulation greatly reduces the possibility of the plumbing freezing. This switch does not heat the water.

**POWER OR PUMP FAILURE DURING FREEZING WEATHER:**

1. Turn off pool switches at main breaker panel.
2. Filter: Open air relief valve on top and remove the white cap at the bottom to drain unit.
3. Sight Glass: Open hose bib next to sight glass.
4. Heater: Open drain cocks on either side of heater.
5. Pump: Remove hair and lint strainer basket lid and strainer basket pot and at bottom of pump.
6. Polaris: Remove black rubber hose at Polaris motor.
7. Valves: Open ALL valves.
8. Reverse the above steps when power is restored.

***NOTE: Freeze damage is NOT covered under any warranty so please read and follow directions carefully. Most freeze damage occurs when baskets are full of debris or you have low water flow. The other common freeze damage is the water level gets low and the pumps lose prime. You will evaporate a lot of water in a freeze. YOUR POOL MUST STAY FULL OF WATER.***

#### **PROCEDURES TO BE USED DURING A FREEZE:**

1. Make sure skimmers and pump pot is clean and clear of any debris.
2. Fill lines- Disconnect the fill line during freezing weather to avoid damaging household plumbing. You must keep your pool full of water or you WILL have freeze damage.
3. Spa: Open the spa jet valve (half way) during freezing weather to maintain freeze damage. Open spa drain valve 1/4 open. (Only when the temperatures are in the teens for more than 24 hours at a time)
4. Time Clock: As mentioned above, the freeze prevention switch will override any time clock setting. It is still recommended to remove the clock dial(s) and manually turn the system on.
5. Automatic Cleaning System: During freezing weather, disconnect cleaning unit from pool, drain unit and hoses and store in a protected area.
6. Separation Tank (if installed): Always make certain the separation tank drain valves are open as directed during freezing weather.
7. Always make sure water level is in middle of tile line.
8. Backwash sight glass (if so equipped): If water remains in the sight glass after backwashing, it should be drained to avoid freeze damage. Loosen the bolts slightly to allow the water to drain.
9. Slide: Drain slide tubing during the winter months to avoid freeze damage.

#### **EXTREME FREEZING CONDITIONS:**

If you should experience extreme freezing conditions, such as ice formation on the pool and/or spa water surface, or temperatures drop down to the mid teens or below, the following should be performed:

1. Turn heater on highest setting for at least 10 hours.  
Note: Although pool motor may be running, it is activated by the Prevent-A-Freeze Switch. For the heater to fire, be sure the time clock for the pool motor is in the "on" position.
2. Open Valves
  - a. Spa drain valve should be 1/4 way open, spa jets should be open 1/2 .
  - b. All other valves should be fully open.
3. Check water level
  - a. If ice develops on surface of pool, water level should be maintained higher than normal to compensate for the thickness of the ice to insure proper flow into the skimmers.
  - b. When the heater is on, water will evaporate quicker than normal. Check the water level at least once daily.

***NOTE: If your fill line or house hose bib freezes, it may be necessary to fill pool with the washing machine hose bib inside your house.***

#### 4. Observe

- a. When it is extremely cold, the pressure gauge on your filter may become frozen and non-functional. If this occurs, you must notice circulation from your return lines in your pool.
- b. Check skimmers for water flow. When ice is on the surface, it could freeze the skimmer weir (flap at the front of skimmer). If this occurs, it could prevent water flow into skimmers.

**KEEP ICE BROKEN AWAY FROM SKIMMERS.**

#### **COMPUTER EXTREME FREEZING CONDITIONS:**

Press the menu button, press setup key, press advanced key, press circuit functions key, press spa key. On with freeze should say NO. Press on with freeze key. NO will change to YES.  
**YOU MUST PRESS SAVE.**

#### **CHEMICALS: Standard** (contact Pool Environments for variations with Salt Pools)

If water temperature is 50 degrees or below, testing should be performed once every 2 weeks.

If water temperature is between 50 to 85 degrees, testing should be performed once a week.

If water temperature is 85 degrees or above, it is suggested to perform the testing 2 times per week if possible but it is not absolutely necessary.

1. Chlorine: If chlorine level is above 3.0 discontinue testing for a day or so until level lowers or further testing will be inaccurate.
2. Alkalinity: (Level of Hydroxy Buffers) Total alkalinity range acceptable for most plaster pool is between 100 to 120 ppm (parts per million), optimum 110 ppm. In the winter, alkalinity should be kept at 120 ppm. Due to our local water conditions and the fact that you have a plaster pool, it is very unlikely that the alkalinity level will ever go over 150 ppm. However, if it should ever go above 150 ppm, call your service technician for instructions. When alkalinity tests out of the acceptable range (below 100 ppm or over 150 ppm), you must adjust the level before proceeding any further.

**NOTE:** *When adding chemicals to pool, pool pump and cleaner must be running. NEVER add chemicals at the same time or within 30 minutes of each other.*

- a. To raise alkalinity: 2 pounds of baking soda per 10,000 gallons will raise the level by 10 ppm. Example: If the alkalinity level is 70 ppm it should be raised to 110 ppm. To do this, you would add 8 pounds of baking soda. To add baking soda, broadcast it as evenly across pool surface. Wait for 30 minutes then proceed to the next test. Alkalinity must be in Acceptable Range before PH test is performed.

3. PH: The PH test is the single most important chemical level in the pool a PH Level of 7.4 to 7.6 is recommended for sparkling water, effective bacteria control, minimum corrosion of fittings and maximum bather comfort

- a. If the PH is above 7.6, perform an acid demand test and add the required amount of muratic acid to drop the PH level down to 7.4.

**NOTE:** *If alkalinity is within the acceptable level the PH will not ever be below 7.2.*

4. If water temperature deems it necessary to shock pool, do so 30 minutes after adding the muratic acid.

#### **RECOMMENDED SHOCK TREATMENT AND BRUSHING:**

( Frequency varies for Salt Pools) Contact Pool Environments for Details.

WATER TEMPERATURE	SHOCK	BRUSH
Below 50 deg.	once every 2 months	once a month (entire pool)
50 - 80 deg.	once every 4 to 6 wks.	every 2 to 3 wks
80 - 85 deg.	once every 2 weeks	once a week
85 deg & higher	once a week	once a week

These frequencies are approximate. A regular check of your pool is recommended as each pool varies, due to conditions. This minimum required brushing will help to prevent bacteria build up and possible staining.

5. If shocking is not needed but chlorine level is to low for water temperature, adjust the dial of the in-line chlorinator at the equipment pad upwards or adjust Salt Generator to higher setting.

#### SUGGESTED CHLORINE AND CALCIUM LEVELS BY TEMPERATURE:

WATER TEMPERATURE	CHLORINE LEVEL	CALCIUM LEVEL
Below 60	.30	400 ppm
60 to 65	.50	250 ppm
65 to 75	.80	225 ppm
75 to 85	1.0 to 1.5	200 ppm
85 or up	2.0 to 3.0	200 ppm

**REMEMBER:** Always dilute acid by pouring **ACID INTO WATER**, not water into acid. Always open chemical containers in a well-ventilated area - **THAT MEANS OUTDOORS!!!**

**\*\* NEVER:** Mix two or more chemicals together - Chlorine will always ignite or explode if mixed with Acid.**\*\*NEVER:** Mix two types of chlorine together it will explode.

#### RECOMMENDED RUN TIMES FOR 550 TO 650 SQUARE FOOT POOLS

WATER TEMPERATURE:	RUN TIME:
Below 50 deg.	4 hours *
50 - 85 deg.	6 - 8 hours
85 deg. & higher	12 hours

\* Winter 4 hour Run Time is most efficient electrically, run 1 am to 6 am.

\*If your pool has low speed technology, contact the service department for run times.

#### CHLORINE SAVING TIPS (Summer Months Only)

After second week start up time, add a chlorine stabilizer to water. Add a three pound jar for a 600 square foot pool. This will drop the chlorine consumption. Your stabilizer residual should stay between 25 to 40 ppm.

**!!!ALWAYS REMEMBER: ANY PROBLEMS OR QUESTIONS PLEASE CALL US:**

#### POOL ENVIRONMENTS

**(972) 985-1576 Fax (972) 964-1685**

**Email: [service@poolenvironments.com](mailto:service@poolenvironments.com)**

3" Trichlor tablets (Only in Non Salt Pools)  
Dichlor Granular (For Shocking / Oxidizing)  
Calcium Hypo Chlorite (For Shocking / Oxidizing)  
25 lb. bag of D.E.  
4 gallons of Muratic Acid  
12 lbs. of Baking Soda in 4 lb. Boxes  
Sodium Monoper Sulfate (Non Chlorine Oxidizer) ( Saline Pools Only)

**OPTIONAL ITEMS:**

Rubbermaid trash can with lid  
Hooks to hang poles on fence  
Plastic D.E. scoop  
Floating Thermometer

**TROUBLE SHOOTING:**

**LIGHTS NOT WORKING:**

**( 1 ) ALL LIGHTS WILL NOT COME ON:  
CHECK G.F.C.I. ( GROUND FAULT CIRCUIT INTERUPTER )**

<b>Yours is located:</b> _____ _____ _____ _____
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**IF YOU HAVE MORE THAN 3 LIGHTS YOU MAY HAVE MORE THAN 1 (ONE) G.F.C.I.  
BE SURE THAT RESET BUTTON IS PUSHED IN & STAYS IN. IF IT DOES NOT CONTACT US A.S.A.P.  
ALL G.F.C.I.'s WILL TRIP NORMALY 3 TO 6 TIMES PER YEAR, DUE TO STORMS OR ELECTRICAL SURGES.**

**( 2 ) HEATER NOT HEATING**

**Make sure the heater is activated and the temperature is set above current water temperature. If it is, go out to your pool equipment/heater and flip up the cover on the heater display. Make sure there is a green light above pool or spa “no difference which one” and the temperature is set to 104 at the heater.**

**( 3 ) SPA CONTINUES TO SPILL OVER SPILLWAY & SPA DOES NOT HEAT, OR IT IS DRAINING IN SPA OPERATION.**

**CHECK THE 3 POSITION TOGGLE SWITCH ON THE CVA VALVE ACTUATORS AND MAKE SURE THEY ARE SET IN CORRECT POSITION ACCORDING TO YOUR SYSTEM. (See your Instruction notes for correct position.) TOGGLE SWITCH LOCATION IS NOTED BY ARROW.**



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**LINK TO PENTAIR WEBSITE**

<http://pentairpool.com/pdfs/intellitouchcontrolsUG.pdf>