- ♦ If your unit is located under trees where leaves fall and accumulate in the bottom of the heat pump they should be removed by a qualified technician.
- ♦ Another VERY IMPORTANT NOTE!! In areas where hard freezing conditions exist, proper winterizing of the heat pump is critical. For detailed instructions on winterizing refer to the section on winterizing in the owner's manual.
- ♦ In areas where light freezing conditions occur lasting only a few hours, keep the pump that supplies water to the heat pump operating. Flowing water will not freeze under light freezing conditions.

TROUBLE SHOOTING

Heat Pump Running but Not Heating

- ♦ Is the air blowing out of the top of the unit noticeably cooler (8° to 12° is typical) than the surrounding air? If not, call AquaCal for service at 800-786-7751.
- ♦ Be sure that all air coil surfaces are free from obstructions; low roof overhangs, landscaping, wall, fences, etc. The heat pump needs good airflow to operate at peak efficiency.
- ♦ How long are you running your circulating pump per day? Cooler climatic conditions or heating to a higher temperature may necessitate running the heat pump for a longer period of time. A pool blanket may be necessary to allow for shorter run times, not to mention huge savings on your heating energy cost.
- ♦ What is the air temperature? Your heat pump may be in the defrost mode if air temperatures are below 50 °f. The digital display will read "FS" if the unit is defrosting or air temperatures are to cold.

Heat Pump Not Running

- ♦ Is the display lit up? If not check to see if the main breaker (located at the power supply panel) or the reset (located on the control panel) has tripped or the disconnect switch (located near the heat pump) is off.
- ♦ Does the display read "Flo"? If so, check to be sure that the circulating pump is operating and check for a dirty filter. There may also be a valve positioned incorrectly allowing water to by-pass the heat pump.

- ♦ Does the display read "OFF"? If so the desired water temperature is set below 60 °F. Raise the desired water temperature above the actual water temperature and the unit should start after a 3-4 minute delay.
- ♦ If the display is showing any other fault codes or is blank call AquaCal at 800-786-7751 for service.

Water Leaking out of the Heat Pump (Is it a leak or natural condensation from normal operation? Here's how to find out).

- ♦ Shut your heat pump off leaving the pool pump running. In a couple of hours there should be a marked reduction in the amount of water around the bottom of the heat pump.
- ♦ If you believe that the heat pump is leaking, you can check the water draining out the base for the presence of the sanitizer you are using for your pool. Use your test kit and check a sample of the water for chlorine or bromine. If the sample tests positive call AquaCal for service at 800-786-7751. If the test is negative, the water is probably condensate. If you are using an ionizer or ozone generator to sanitize your pool, this test method will not be effective.

What We Need To Know When You Call Us

♦ If you should need to call AquaCal for service, please have the following information ready when you call.

Model:

Serial Number:

Installation Date:

♦ This will speed up the service process and allow us to respond more quickly. A brief description of what the unit is or is not doing will also help the situation. You can call us at 800-786-7751. Our office hours are 8 a.m. to 5 p.m. EST, Monday through Friday. If calling after hours, our voice mail service will handle your call. Be sure to leave your name and complete address and phone number for us. Our fax number is 727-821-7471.



Quick "Start, Run & Check"

"Almost" Everything You Need To Know ...

> Aqua Cal, Inc. 2737 24th Street North St. Petersburg, FL 33713 800-786-7751 www.aquacal.com

"Almost" Everything You Need To Know... To Get It Running ... and Keep It Running

START UP

• Start the pool circulation pump.

NOTE: The Pool Filter Pump must be operating for the heat pump to begin heating. Anytime the Pool Filter Pump is turned off the heat pump will also be off.

- Ensure that the unit has power connected (display will be lit).
- ♦ If the display is blank, ensure that the breaker and / or disconnect are switched on.

HOW TO OPERATE THE CONTROLS

- ♦ Once the unit has power connected, the display will read either "OFF" or the actual pool or spa water temperature.
- ♦ If the display reads "OFF" depress the up arrow key until the display reads 60 °F or higher.

NOTE: The display reads current pool / spa water temperature when the desired temperature is set to 60 °F or above. When the desired water temperature is set below 60 °F the display reads OFF.

- ♦ Once the unit is displaying the current water temperature the system is ready to operate.
- ♦ Locate the Pool / Spa key on the control panel. By depressing this key you can select between the Pool and Spa mode.
- ♦ Using the Pool / Spa key, select the Pool mode. When the Pool mode has been selected the Pool indicator light on the left side of the display will be on.
- ♦ With the control in the Pool mode use the Up / Down arrow keys set the desired water temperature.

- ♦ Using the Pool / Spa key, select the Spa mode. When the Spa mode has been selected the Spa indicator light on the left side of the display will be on.
- ♦ With the control in the Spa mode use the Up / Down arrow keys to set the desired water temperature.
- ♦ At this time the heat pump will maintain the desired water temperature for the mode selected (Pool or Spa).
- ♦ Once the actual (displayed) water temperature falls below the desired set point the unit will start heating after an initial time delay of 3-4 minutes.

NOTE: The heat pump incorporates an anti short cycle time delay. Anytime the units operation is interrupted the unit will delay the restart for 3-4 minutes.

POOL FILTER PUMP OPERATION

Note: Some pool systems utilize a timer to control the pool filter pump "on time". If your pool system incorporates a timer follow the instructions below.

- ♦ It will be necessary to allow your pool filter pump to run continuously until the pool has reached the desired temperature. If a timer controls your pool filter pump, it will be necessary to override timer to allow 24-hr. operation.
- ♦ Once the desired temperature has been obtained (2-4 days) you should reset your Time Clock.

NOTE: Remember that the heat pump can only operate when the Pool Filter Pump it running. It may be necessary in cooler weather to extend the pump's hours of operation per day to keep up with increased heat loss.

NORMAL USAGE

♦ If you have followed the directions up to this point you should be on your way to enjoying a warm Pool or hot Spa.

- ♦ After the heat pump has been running for some time you may see water present around the unit. This is condensation that is produced as a by-product of transferring heat from the air to your pool. Quantities of 6-8 gallons per hour are not uncommon if the humidity is high. Conversely, a low humidity condition may result in no condensation.
- ♦ Water chemistry ... **VERY IMPORTANT NOTE!!** Your heat pump has been engineered for durability and reliability; however, prolonged exposure to unbalanced water chemistry will result in premature failure and service.
- ♦ Keep chlorine in the 1-3 PPM range; pH should be kept between 7.4 and 7.6; Alkalinity, 80-100 PPM but this will depend on the type of pool surface, so check with your pool service expert. If bromine is being used, 2.0 to 4.0 PPM. See the owners manual for more detailed information.

TO STOP THE UNIT

♦ The unit can be stopped by switching off the electrical supply or by setting the desired temperature lower than the actual water temperature. The unit will display "off" if the desired water temperature is set below 60 °F.

MAINTAINANCE

- ♦ You should have your heat pump cleaned on an annual basis by a qualified pool heat pump specialist. If your heat pump is located on the beach or a sea wall where salt spray and sand gets in or on the unit, a more frequent cleaning is necessary. Call AquaCal for details at 800-786-7751.
- ♦ Provide good airflow to the heat pump. Keep the sides and top of the heat pump free of obstructions.
- ♦ Control sprinklers: In the south where shallow wells are used for irrigation water quality is usually less than poor and can corrode the internal components of the heater. Regardless of water quality, it is recommended that sprinklers be directed away from the heat pump.
- Drainage. As previously stated, your heat pump produces a lot of condensation at various times. Keep the drain holes at the base of the heat pump free of grass and weeds.