

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

These instructions are intended for local control of a heat pump, independent of an external controller. Owners: if your installation includes an external controller, contact your installing dealer for operational instructions.

These instructions are for quick-starting in heating mode only...owners of Heat-Cool units, in order to utilize all features of their heater, will certainly want to also refer to: “Owner Level Programming,” located within the full heater manual.

– GETTING STARTED –

1. Verify Electrical Power is Present at Heater:

- Ensure the heater has electrical power connected; the controller display should be illuminated.
- If the display is blank, be certain the electrical breaker, and heater disconnect, are switched to “ON.”
- For now, leave the water circulation pump OFF.

2. Set the Heater Controls:

OWNER- If heater is connected to a Call-Flex controller, also see: “Call-Flex Programming,” located within the “Owner Level Programming” section of the heater manual.

INSTALLER- Is heater connected to an external controller? If so, set up programming is necessary. See: “Controls Configuration,” located within the “Level-2 Programming” section of the heater manual.

- The user/owner settings can be completed without water flowing. Once the heater has electrical power connected, with water *not* flowing, the display should read FLO.
- Press the MODE button until the HEAT (HEA) indication displays.
- Using the POOL / SPA selector key, select the POOL mode. An illuminated POOL indicator light, located on the left side of the display, will confirm the POOL control has been selected. If heating *only* a spa, using the DOWN arrow key, lower the POOL temperature until OFF is displayed; then proceed to Step-“E.”

- If heating a pool, use the UP / DOWN arrow keys to set the desired water temperature for the POOL water.
- If the heat pump will be used to heat a spa, use the POOL/ SPA selector key to select SPA, then use the UP / DOWN arrow keys to set the desired water temperature for the SPA. If heating *only* a POOL, using the DOWN arrow key, lower the SPA temperature until OFF is displayed.
- The heat pump controls are now set to maintain the desired water temperature for the POOL and/or SPA.

3. To Begin Heating:

- Verify MODE is set to: HEAT (HEA); then, depending on the body of water to be heated, use the POOL / SPA selector key to choose either POOL or SPA.
- Position external water valves appropriately to flow water to-and-from the body of water and through the heater.
- Start the water pump...Within 4-minutes, depending on the status of the controller’s internal time delay, the heater will start. The water will be brought to temperature and maintained per the setting determined previously in: “Set the Heater Controls.”
- In operation, whenever the actual (displayed) water temperature falls below the desired set point, the unit will begin heating.

TO STOP THE HEATER

Select: OFF via the MODE selector. This method of shut down preserves the controller settings; an interruption of water flow—such as when a pump timer is in control—will also cease heat pump operation.

FILTER PUMP OPERATION

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

- ❖ The filter pump will need to run continuously until the water has reached the desired temperature. If a timer controls your filter pump, it will be necessary to override the timer to allow for temporary, continuous operation.
- ❖ Once the desired temperature has been obtained (usually 1-to-4 days), reset the pump timer for normal operation.
NOTE: The heater can only operate when the filter pump is running. It may be necessary, during cooler weather, to extend the pump’s daily hours of operation. This will enable the heater to keep up with increased heat losses.

NORMAL USAGE

- ❖ After the heat pump has been running for some time, water may be seen around the unit. This is condensation produced as a normal by-product of transferring heat from the air to the pool or spa. Quantities of 6-8 gallons per hour are not uncommon when the humidity is high. Conversely, a low ambient humidity condition may result in no condensation.
- ❖ **VERY IMPORTANT NOTE!!** Water chemistry ... Your heat pump has been engineered for durability and reliability; however, prolonged exposure to unbalanced water chemistry will result in premature failure and service requirements.
- ❖ Keep chlorine in the 1-3 PPM range- If bromine is being used, 2.0 to 4.0 PPM.; pH between 7.4 and 7.6; Alkalinity, 80-100 PPM; hardness 125 PPM (or more). Exact needs will depend on the type of pool surface; check with your pool service expert. See owners manual for more detailed information.

MAINTENANCE & WINTERIZING

- ❖ Your heat pump should be cleaned and inspected 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, more frequent maintenance will be necessary. Contact AquaCal for details.
- ❖ Provide proper airflow to the heat pump. Keep the sides and top of the heat pump free of obstructions.
- ❖ Control Irrigation: where wells are used for irrigation, water quality can be poor. Heat pump components can be damaged by well water; regardless of water quality, it is recommended sprinklers be directed away from the heat pump.
- ❖ Drainage... as previously stated, your heat pump, under various conditions, will produce large quantities of condensation. Keep the drain holes, located at the base of the heat pump, free of grass and weeds.
- ❖ If your heater is located under trees, leaves may fall and accumulate in the bottom of the heat pump. Accumulated debris should be removed by a qualified technician.
- ❖ **VERY IMPORTANT NOTE!!** In areas where hard freeze conditions occur, proper winterizing of the heat pump is critical. For detailed instructions on winterizing, refer to “Winterizing” in the heater manual, or at www.aquacal.com.
- ❖ In areas where light freezing conditions occur—lasting less than four (4) hours—keep the water pump operating. Flowing water will not freeze under *limited*, light freeze conditions.

- TROUBLESHOOTING -

Heat Pump Not Running:

- ❖ Is the display illuminated? If not, check to see if the main breaker (located at the power supply panel) has tripped, or if the unit disconnect switch (located near the heat pump) is off. Reset breakers and switches to ON. In order to begin operation, the heater's control display must be illuminated.
- ❖ Does the display read "FLO"? If so, check to be sure the circulating pump is operating and the water filter is clean. There may also be a valve positioned incorrectly allowing water to bypass the heat pump.
- ❖ Does the display read "OFF"? If so, depress the MODE button until "HEA" displays. If still "OFF," the desired water temperature is set below 45°F. Raise the desired water temperature above the actual water temperature; the heater should start within 3-4 minutes.
- ❖ If the display is showing any other fault code, or is blank, contact AquaCal Customer Support.

Heat Pump Running but Not Heating:

- ❖ Be sure all air coil surfaces are free from obstructions; low roof overhangs, landscaping, walls, fences, etc. can restrict air flow. The heat pump needs unrestricted airflow to operate at peak efficiency.
- ❖ How long are you running the water circulating pump each day? Cooler climatic conditions, or heating to a higher than typical 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 significant heating cost savings.
- ❖ What is the air temperature? Your heat pump may be in the defrost mode if air temperatures are much below 50°F. The digital display will read "FS" or "DEF" if the unit is defrosting or air temperatures are too cold for normal heat pump operation.
- ❖ Is the air blowing out of the top of the heater noticeably cooler (8 to 12° is typical) than the surrounding air? If not (after having checked the three items above), call AquaCal Customer Support.

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 seen around the bottom of the heat pump.
- ❖ If you believe the heat pump is leaking, check the water draining from the heater for the presence of the sanitizer being used in the pool or spa. Using your chemical test kit, check a sample of the water for chlorine or bromine. If the sample tests positive, call AquaCal for service. If the test is negative, the water is probably harmless condensate. If using an ionizer or ozone generator as a sanitizing means, the chemical test method will not be effective in determining water leaks.

CAUTION: if testing indicates a water leak is present (water does not dry up with the pump OFF, or there is an indication of sanitizer in the sample taken from around the heater), immediately shut off the water pump and contact your installing dealer or AquaCal Customer Support for service. Permitting the system to operate with a water leak present may damage equipment and the pool/spa structure.

What We Need To Know When You Call Us:

- ❖ When contacting AquaCal for service or parts, please have the following information ready:

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 be very helpful.
- ❖ We may be reached at: 727-823-5642. 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. Our fax number is 727-821-7471.



Quick
"Start, Run & Check"



Heat Pump Models

100, 120, 135, & 155
101, 111, 121, & 156

For a full manual go to www.AquaCal.com

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