



Heat Wave & AeroTemp



**POOL
HEAT PUMPS**

- Heating Only Models -

Manual with Heat Pump Owner

AQ Tech-12/15/03

WELCOME TO THE AQUACAL FAMILY

on a... Since 8, A... an fac... n oo & s...

o me... s no on ya... b a so... cos...
o s a... yo... s o 400% o... an as, and...
co a red... s... yo... s me a y 100% o...
and... and s... b... o de ye a s o... b... o... a... on.

Mo re... do yo... de yo... d... A... a... o... de... a...
ns... on and... a... nance... o... yo... which we do recommend yo...
nd... a... a... as... re... a... es... and... os... t... a... f... red... fac... o... y... a... med... se... ce... s... a... n...
re... oo... t... &... s... a... re... a... t... nd... s... ty.

IMPORTANT FEATURES OF YOUR NEW HEAT PUMP

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE INSTALLING THE UNIT.

- ThermoLink™ heat exchanger:
The heat exchanger is a... ThermoLink™ heat exchanger... The... a... y...
case of... the... de... s... t... a... f... o... t... re... a... ex... c... h... a... n... g... e...
ex... c... h... a... n... g... e... s... a... r... e... a... d... e... s... i... g... n... e... d... f... o... a... c... c... o... n... c... r... e... a... t... i... o... n...
a... c... f... o... r... s... a... n... z... e... s... s... e... d... n... o... o... s... a... n... d... s... a... s... a... n... d... f... o... r... o... t... h... e... r...
cond... o... n... s... i... n... c... e... t... h... e... r... e... a... x... c... h... a... n... g... e... r... f... a... s... t... h... e... r... e... a... x... c... h... a... n... g... e... r...
ex... c... h... a... n... g... e... r... i... s... t... m... e... d... ThermoLink™ heat exchanger...
be... s... t... a... d... e... s... i... g... n... e... d... a... n... d... s... t... a... y... r... e... o... s... o... f... a... r... e... c... r... e... s... t... y...
d... a... a... r... e...
- Scorosso:
Scorosso... s... c... o... n... a... n... 50%... w... e... r... e... o... n... a... s... i... a... n... c... o... n... s... o... n... y... r... e... c... o... r... e... s... s...
Less... o... n... a... s... e... a... r... e... o... t... h... e... r... o... r... d... e... r... a... b... i... l... i... t... y... Add... o... n... a... y... s... c... o... r... o... s... s...
a... r... e... r... e... t... i... n... o... r... e... a... t... i... o... n... a... n... s... o... n... y... r... e... c... o... r... e... s... s... a... n... d... o... r... e... a... r... e... a... c... o... n... s... i... d... e... r... a... b... y...
t... h... e... e... f... f... i... c... i... e... n... c... y... r... e... t... e...
- Microcosso control:
The... r... e... d... a... b... a... s... e...d... c... o... n... t... r... o... l... ,... c... o... n... t... r... o... l... s... a... r... e... r... e... a... r... e... o... f... t... h... e... n... o... r... m... a... l...
o... f... s... e... o... n... The... c... o... n... t... r... o... l... a... s... o... r... s... s... e... o... r... e... d... i... f... f... e... r... e... n... t... o... o... t... a... n... d... s... a... l... a... r... e...
t... h... e... a... r... t... i... c... l... e... ,... a... n... d... o... t... h... e... n... t... a... r... e... n... t... b... y... o... c... c... o... n... t... r... o... l... s... i... n... a... s... s... c... o... d... e... .
- Installation...
- ...

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE INSTALLING THE UNIT.

GENERAL SAFETY INFORMATION

Used and maintained properly, you will enjoy many years of safe and economical use. However, as with any mechanical device, certain safety precautions must be observed while insuring personal safety for you and others cannot be a one and maintenance factors be observed.

Unless, except in a few no. of maintenance (explained later in this manual), the safety of your machine should be observed on by experienced service personnel. Should you require service, you should not attempt to do so, by the following instructions and a warning: "Out of Service", you will be able to determine a cause of service. If necessary, a repair can be made so that the machine is safe to use. If you are unable to do so, contact your nearest service center. For more information, call (800) 877-7777. For more information, contact your nearest service center. If you are unable to do so, contact your nearest service center. If you are unable to do so, contact your nearest service center.

In addition to the above, the following are the most common causes of non-safety and safety hazards, which can be avoided by proper use of the machine, and/or by the use of proper safety and/or safety equipment. The following are the most common causes of non-safety and safety hazards, which can be avoided by proper use of the machine, and/or by the use of proper safety and/or safety equipment.

The following are the most common causes of non-safety and safety hazards, which can be avoided by proper use of the machine, and/or by the use of proper safety and/or safety equipment. The following are the most common causes of non-safety and safety hazards, which can be avoided by proper use of the machine, and/or by the use of proper safety and/or safety equipment.

WARNING	Failure to read the instructions may result in personal injury or death.
----------------	--

This "Warning" symbol is used to indicate a hazard that could result in personal injury or death. Specific instructions will appear in this box.

CAUTION	Failure to read the instructions may result in personal injury.
----------------	---

This "Caution" symbol is used to indicate a hazard that could result in personal injury. Specific instructions will appear in this box.

WATER CHEMISTRY & TEMPERATURE FACTORS

Water Temperature Safety Factors

WARNING

Water temperature safety factors are a critical concern for any water treatment system. High temperatures can lead to increased bacterial growth, particularly Legionella pneumophila, which is a leading cause of pneumonia and other respiratory infections. Additionally, high temperatures can reduce the effectiveness of disinfection processes, such as chlorination, and can cause thermal stress to aquatic life. In addition, high temperatures can lead to increased oxygen demand, which can deplete oxygen levels in the water, leading to hypoxia and potentially fish kills. Therefore, it is essential to monitor and control water temperature to ensure the safety and health of the community.

Water Chemistry Safety Factors

WARNING

Water chemistry safety factors are critical for ensuring the safety and health of the community. High concentrations of certain chemicals, such as lead, copper, and iron, can cause health problems and damage to property. Additionally, high concentrations of certain chemicals can lead to increased bacterial growth and other water quality issues. Therefore, it is essential to monitor and control water chemistry to ensure the safety and health of the community.

WARNING

Water chemistry safety factors are critical for ensuring the safety and health of the community. High concentrations of certain chemicals, such as lead, copper, and iron, can cause health problems and damage to property. Additionally, high concentrations of certain chemicals can lead to increased bacterial growth and other water quality issues. Therefore, it is essential to monitor and control water chemistry to ensure the safety and health of the community.

RECOMMENDED CHEMISTRY WATER STANDARDS

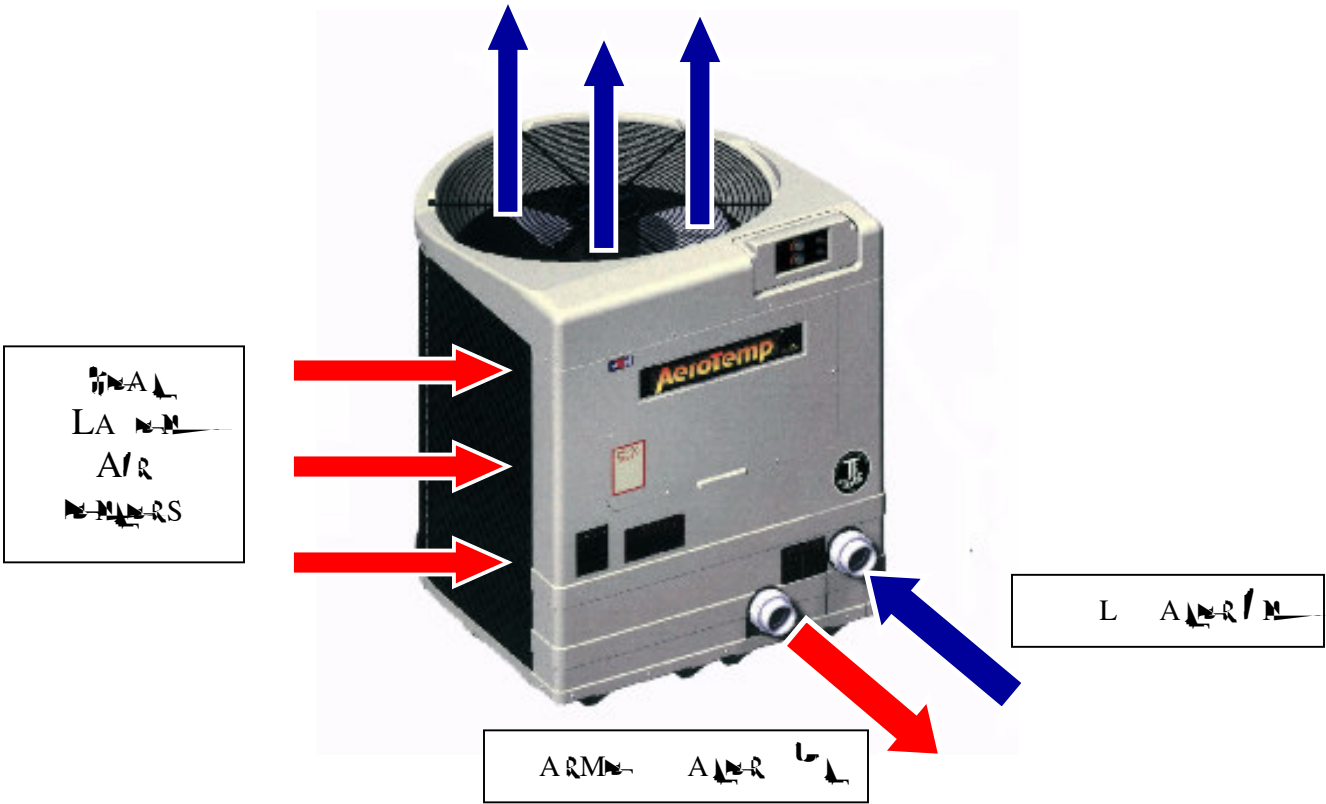
Total Hardness.....	0.30	3.0	mg/L as CaCO ₃
Calcium Hardness.....	2.0	4.0	mg/L as CaCO ₃
Magnesium Hardness.....	0.4	0.8	mg/L as CaCO ₃
Total Dissolved Solids.....	807	407	mg/L as CaCO ₃
Total Suspended Solids.....	200	400	mg/L as CaCO ₃
Lead.....	0.000	2,000	µg/L as Pb
Copper.....	0.000	2,000	µg/L as Cu
Iron.....	0.30	3.0	mg/L as Fe

HOW A HEAT PUMP WORKS

A heat pump does not make heat...

Heat pumps are so efficient because they do not need to produce heat from scratch. They simply transfer heat from one place to another. If one considers a absolute "0" the point where all heat is absent occurs at a 45° Fahrenheit below zero, because even at the relative cool temperature of 55° Fahrenheit still contains a reason of heat energy. In a absolute heat energy area, it takes less and less energy to heat a.

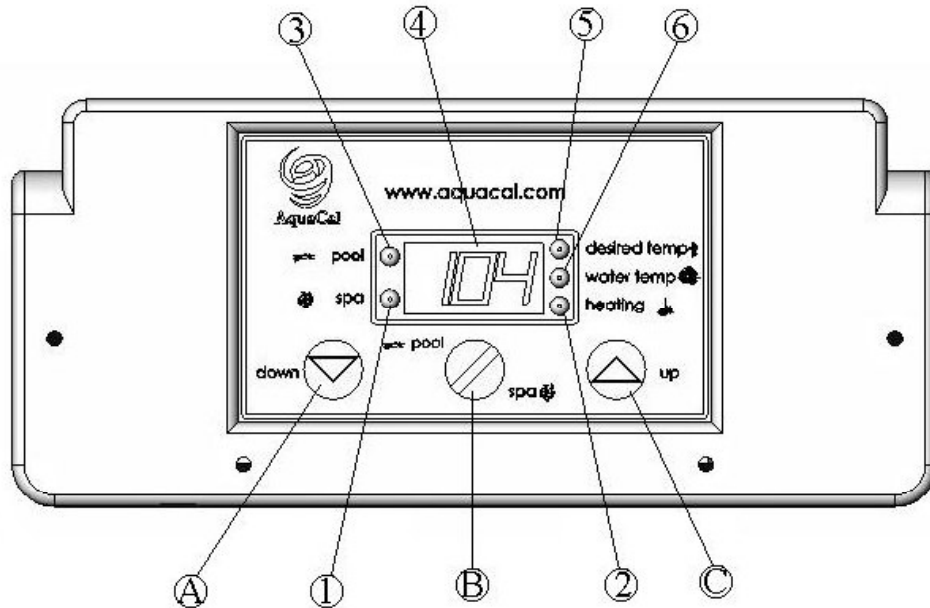
WATER RETURN



NOTE: Water returning to pool or spa will be warmed approximately 2° to 4° F, each pass through.

GETTING FAMILIAR WITH CONTROLS

DIGITAL CONTROLLER – PANEL LAYOUT



Control Buttons (AS INDICATED BY CIRCLED LETTERS)

- A. Down Arrow** Pressing this key decreases the temperature setting. Setting the temperature below 60° Fahrenheit turns the unit off.
- B. Pool / Spa Selector** Pressing this key selects between pool or spa mode. A second press of the button returns the unit to the previous mode.
- C. Up Arrow** Pressing this key increases the temperature setting. The maximum temperature setting is 04° Fahrenheit.

Indicator Lights & Displays (AS INDICATED BY CIRCLED NUMBERS)

- 1) Spa Indicator Light** Indicates spa mode is selected.
- 2) Heating Indicator Light** Indicates that the heater is running.
- 3) Pool Indicator Light** Indicates pool mode is selected.
- 4) LED Display** Shows the current temperature setting. When the unit is in the "MARR" state, no button presses, or desired temperature is reached, the display will show "MARR". When the unit is in the "MARR" state, the display will show "MARR" or "MARR" if the temperature is reached. The display will show "MARR" if the temperature is reached.
- 5) Desired Temp Light** Indicates that the temperature setting is displayed, and the temperature is set and not being adjusted. When the unit is in the "MARR" state, the display will show "MARR" or "MARR" if the temperature is reached.

GETTING YOUR HEAT PUMP STARTED & STOPPED

ATTENTION:

THIS IS A QUICK-START GUIDE... For more information concerning the installation and operation, see: *Owner's Instructions for HP7 Digital Heat Pump Controller*, located in the appendix and manual.

INITIAL START UP

1. Safety precautions.
NOTE: The L/S/A, M/S, and R/A parameters are factory set to the following values: L/S/A = 0, M/S = 0, R/A = 0.
2. The heat pump should be connected; display should be normal.
3. The display should be blank, because the battery and keypad are disconnected.

HOW TO OPERATE THE CONTROLS

1. Once the heat pump is connected, the display should read "00.0". The actual room temperature is shown on the display. When the display reads "00.0", see the "00.0" section.
2. The display reads "00", press the "A" key. The display reads "00.0".
The display shows "00.0" when the L/S/A parameter is set to 0. The display shows "00.0" when the M/S parameter is set to 0. The display shows "00.0" when the R/A parameter is set to 0.
3. Once the heat pump is ready to operate, locate the L/S/A selector on the control panel; by pressing the key, you can select between the "00" and "00.0".
4. When the L/S/A selector is set to "00.0", the heat pump will start to operate. The display will be "00.0".
5. The heat pump will operate in the "00.0" mode, see the "00.0" section for more details.
6. The heat pump will also be in "00.0" mode as a result of the "00.0" mode.
7. The heat pump will not operate in "00.0" mode if the L/S/A parameter is set to "00".

GETTING YOUR HEAT PUMP STARTED & STOPPED

(continued)

8. In operation, the temperature of the air (displayed) at the thermostat is below the desired set point. The unit starts again after an interval of 4 minutes.

Model: A1000/MP/MP RAISA/MS/RA L/M/MA .S/L
P/RAL MB/MP/MP/RA, RAISARA/LLB/MA B APPR X/MA/L 4 M/MS.

CONTINUOUS USAGE AND WATER AROUND UNIT

- If you have observed the conditions above, you should be on your way to the technician.
- After the area has been inspected, you may see water present around the unit. This is condensation produced as a by-product of the unit's normal operation. If the water is dripping, it is an indication of a problem. However, if the water is only condensation, it is normal. If the water is dripping, it is a sign of a problem.

REQUIRED HOURS OF POOL PUMP OPERATION

Some systems may require a minimum of 8 hours of operation per day. The minimum operation time may vary depending on the system.

- It may be necessary to allow the unit to run continuously for 24 hours as a test.
- If a continuous test is necessary, it should be done for 24 hours.
- It is recommended that the unit be tested for 24 hours (this may take up to four days), you should see the unit's operation.

REMEMBER ... THE HEAT PUMP CAN ONLY OPERATE WHEN THE CIRCULATOR PUMP IS RUNNING.

The heat pump will not operate if the circulator pump is not running. The circulator pump is located in the pool area.

TO SHUT THE UNIT OFF

- The unit can be shut off by the thermostat. The thermostat is located in the pool area.
- The unit displays " " when the thermostat is set to 0°.

MAINTENANCE

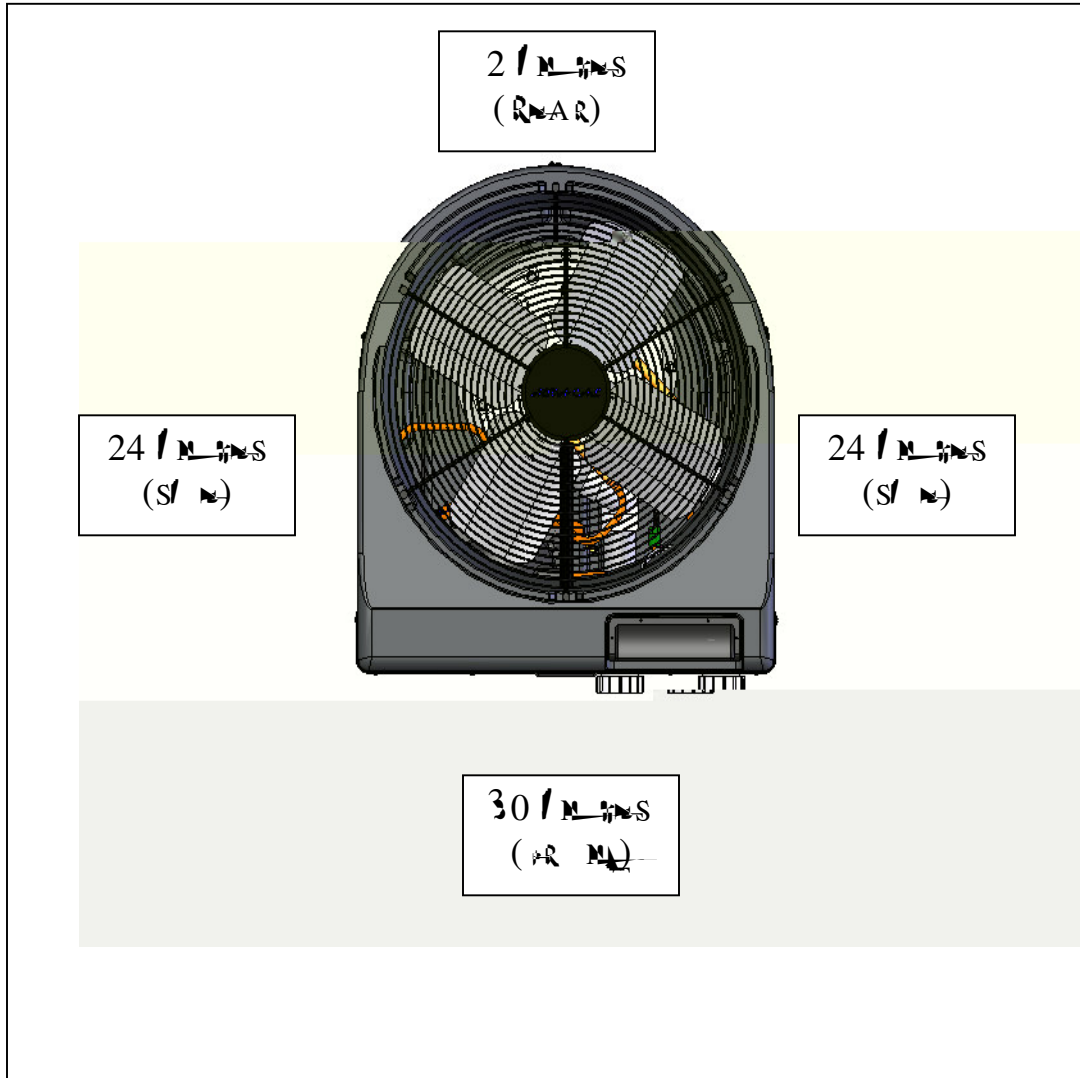
PLANNED MAINTENANCE PROGRAM

As a offer a very reasonably priced, professionally performed, Planned Maintenance Program. See Appendix X for details.

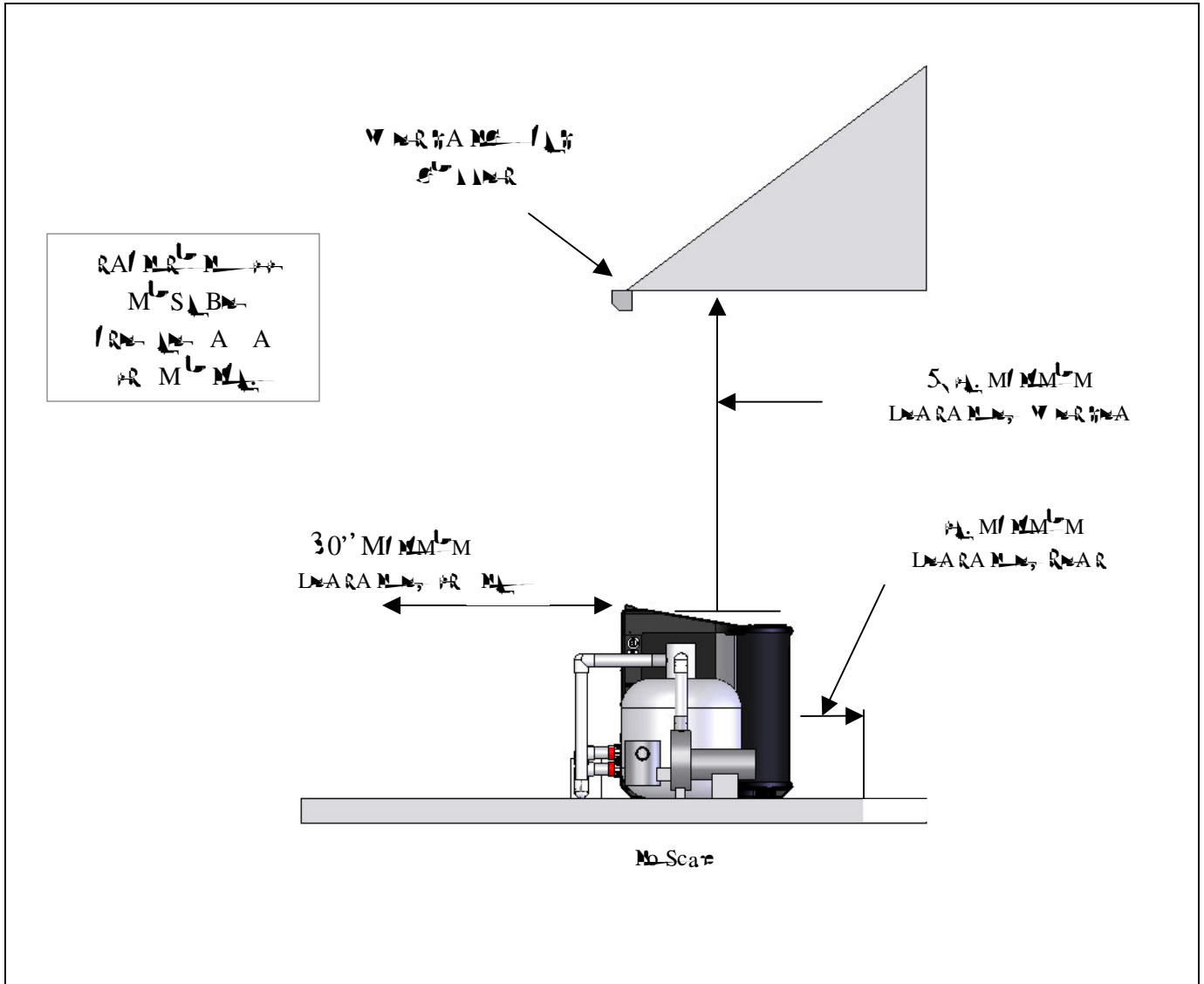
GENERAL MAINTENANCE

- Inspect and clean the pool and spa areas on an annual basis by a professional pool service. Additionally, pool water is tested on the beach, pool area, and sand can affect the pool. If necessary, see Appendix X for details, and then contact a professional. See Appendix X for details. Phone: 800-555-5555.
- Pool odor: In the pool, the water is tested for a pool, and a pool is so the pool is clean, and a pool is clean. See Appendix X for details, and then contact a professional.
- Pool water: In the pool, the water is tested for a pool, and a pool is so the pool is clean, and a pool is clean. See Appendix X for details, and then contact a professional.
- Pool water: In the pool, the water is tested for a pool, and a pool is so the pool is clean, and a pool is clean. See Appendix X for details, and then contact a professional.
- Pool water: In the pool, the water is tested for a pool, and a pool is so the pool is clean, and a pool is clean. See Appendix X for details, and then contact a professional.
- Pool water: In the pool, the water is tested for a pool, and a pool is so the pool is clean, and a pool is clean. See Appendix X for details, and then contact a professional.
- Pool water: In the pool, the water is tested for a pool, and a pool is so the pool is clean, and a pool is clean. See Appendix X for details, and then contact a professional.

Recommended Clearances... Sides, Front, and Rear



Recommended Clearances... Overhead, Front, & Rear:



SEASONAL USE & SHUT DOWN

DURING THE SWIM SEASON

- In a residential season, the fan motor should be run for 15 minutes every 24 hours. Do not run the fan motor for more than 24 hours.
- The fan motor should be run for 15 minutes every 24 hours. Do not run the fan motor for more than 24 hours.

FREEZE PROTECTION / EXTENDED SHUT DOWNS

- In a residential freeze protection conditions are a rare occurrence, a fan motor should be run for 15 minutes every 24 hours. Do not run the fan motor for more than 24 hours.
- In a residential freeze protection conditions are a rare occurrence, a fan motor should be run for 15 minutes every 24 hours. Do not run the fan motor for more than 24 hours.

WINTERIZING

AR NING	<p>Do not run the fan motor for more than 24 hours.</p>
<p>Do not run the fan motor for more than 24 hours.</p>	
AR NING	<p>Do not run the fan motor for more than 24 hours.</p>
<p>Do not run the fan motor for more than 24 hours.</p>	

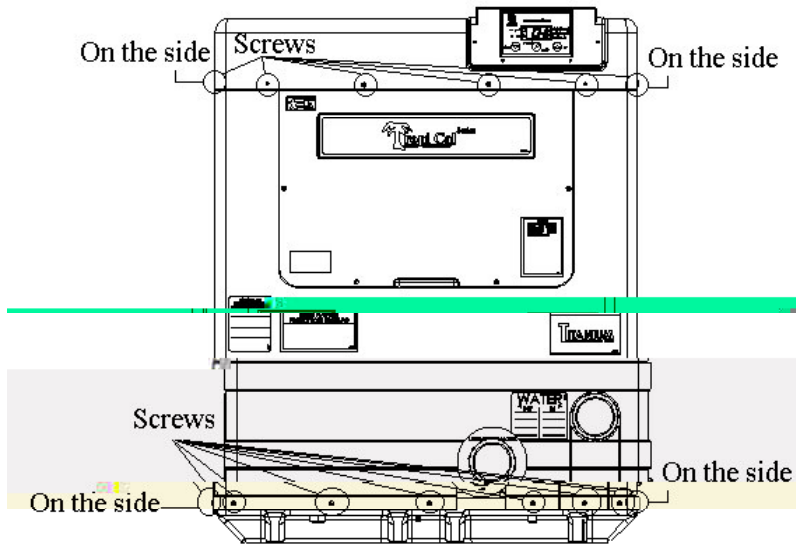
To Winterize a Heat Pump Equipped with an Internal Drain

(Per Figures 1 & 2)

1. Disconnect the fan motor; do not run the fan motor.
2. After the fan motor is disconnected, disconnect the fan motor.
3. Remove the fan motor as described in the instructions.
4. Locate the fan motor base and disconnect the fan motor.

Winterizing (Continued)

5. ... condense and ...
6. ... screws ...
7. ... (2) ...
8. Next Season: ...



	<p>... can ...</p> <p>... and/o ...</p>
<p>... (not fully ...)</p>	

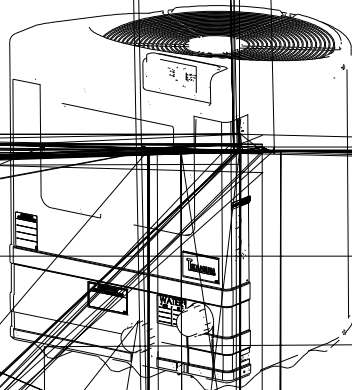


Winterizing (Continued)

To Winterize a Heat Pump Equipped with an External Drain

(Per Figure-3)

1. Disconnect the external drain line from the heat pump and cap it with a 1/2" x 1/2" x 1/2" cap.
 2. Add a 2" (2) connection points, disconnect the external drain line from the heat pump and cap it with a 1/2" x 1/2" x 1/2" cap.
 3. Locate the drain pan and disconnect the external drain line from the heat pump. See Figure 3.
 4. Use a 5/8" box end wrench to disconnect the external drain line from the heat pump (to a separate connection).
 5. Remove the drain pan and disconnect the condensate line, and then reattach the drain pan to the heat pump. Add an additional 1/8" to the drain pan and disconnect the external drain line from the heat pump. Add an additional 1/8" to the drain pan and disconnect the external drain line from the heat pump. Add an additional 1/8" to the drain pan and disconnect the external drain line from the heat pump.
- Max Season:** of ready to use, so as to be ready to use the heat pump.



TROUBLESHOOTING

HEAT PUMP NOT RUNNING

- If the display shows no, the fuse is blown (located at the power supply panel) and the disconnect switch (located near the heat pump) are both checked.
- If the display reads "E0" if so, check the thermostat and the control panel. The thermostat may also be a battery operated model. The thermostat wires are to be installed as follows: blue to the heat pump; black to the power supply; red to the heat pump.
- If the display reads "E1" if so, the thermostat is not working. The thermostat should be replaced. The thermostat should be set to 60°F. The thermostat should be set to 4 in the day. The display shows any other fault codes, or a blank, contact a dealer at 800-855-7777. See the user manual.

HEAT PUMP RUNNING BUT NOT HEATING

- If the air blowing from the vents is noticeably cooler than the room air (A 9°F to 12°F difference is typical.) If not, contact a dealer at 800-855-7777.
- Be sure the coils are free of obstructions; outdoor coils, fans, and screens, as well as, fences, etc. The heat pump needs good airflow to operate at maximum efficiency.
- If the outdoor unit is not running each day, check the outdoor unit conditions, outdoor air filter, and the thermostat. The thermostat may be set to a mode other than heat. A thermostat can be set to heat, cool, or auto. The thermostat should be set to heat. The thermostat should be set to heat.
- If the thermostat is set to heat and the heat pump is not running, the thermostat may be set to a mode other than heat. The thermostat should be set to heat. The thermostat should be set to heat.

WATER LEAKING OUT OF THE HEAT PUMP

(Is it a leak or just condensation from normal operation? Here's how to find out).

- If you see a small amount of water on the base of the unit, it is probably condensation from normal operation. In a cool room, the evaporator coil will be cold and the air passing over it will condense. This is normal and should not be a concern.
- If you see a large amount of water on the base of the unit, it is probably a leak. To determine if it is a leak, you can perform a simple test. Turn the heat pump off and wait for the evaporator coil to warm up. If you see water on the base of the unit after the coil has warmed up, it is probably a leak. If you do not see water, it is probably condensation.

ALL RIGHTS RESERVED. NO PART OF THIS PUBLICATION MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

WHAT WE NEED TO KNOW WHEN YOU CALL US

- If you need our assistance, please have the following information ready when you call:

Model:

Serial Number:

Installation date:

- Having the above information ready will speed up the service process and allow us to respond more quickly. A brief description of the problem is also helpful. You may contact us at 800-854-5800, Monday through Friday, 8 a.m. to 5 p.m. Eastern Standard Time. If you call on a weekend, please leave a message and we will call you back. Be sure to provide your name, company address, and phone number. If you have a fax machine, you may fax us at 282-4477. Our toll-free number is 800-854-5800.

APPENDIX

- I. AQUACAL'S PLANNED MAINTENANCE PROGRAM**
- II. CALCULATING INITIAL HEATING TIME**
- III. OWNER'S INSTRUCTIONS FOR HP7 DIGITAL HEAT PUMP CONTROLLER**



PLANNED MAINTENANCE PROGRAM

Just as you would have yearly service performed on your air conditioning system, regular inspection & maintenance of your AquaCal heat pump will insure highest operating efficiencies while also protecting your investment...*Potentially extending the useful life of your heat pump far beyond the warranty period.* Our expertly trained factory service technicians offer comprehensive maintenance procedures that will insure your heat pump operates efficiently and reliably when you need it to.

The 20-Point Planned Maintenance Service Includes the Following :

- ▶ Check Water Flow
- ▶ Clean Evaporator Coil
- ▶ Check Relay Contacts
- ▶ Check Capacitor Values
- ▶ Check Refrigerant Levels
- ▶ Clean Heat Pump Cabinet
- ▶ Check Fan Blade Clearances
- ▶ Check Flow/Pressure Switch
- ▶ Check Electrical Connections
- ▶ Check Proper Voltage To Unit
- ▶ Oil Fan Motor (*As Applicable*)
- ▶ Check Fan Motor Amperage Draw
- ▶ Check Pool & Spa Water Chemistry
- ▶ Check and Clean Condensate Drains
- ▶ Check Compressor Amperage Draw
- ▶ Check Water Pump Amperage Draw
- ▶ Acid Wash Source Coil (*As Applicable*)
- ▶ Check Operating Controls and Temperature Sensors
- ▶ Check Air Temperature Change Through Evaporator
- ▶ Check Water Temperature Change Through Condenser

We recommend that all AquaCal heat pump owners take advantage of this annual service starting one year after the installation of the unit. You will be surprised at the minimal cost of this service...*The service is very reasonably priced for what is included.* Please contact AquaCal Customer Support, at 1-800-786-7751, for further information or to schedule Planned Maintenance Service.

APPENDIX I



CALCULATING REQUIRED HEATING TIME

The initial time it takes to get your pool warm depends on several factors. First you will need to determine how many gallons of water are in your pool. If you know this, you can compute the pounds of water in the pool and the BTU's necessary to heat the pool to the desired temperature. Secondly, you need to know the approximate BTU output of your heat pump at the ambient air temperature. Finally, we need to know the temperature at which you plan to keep your pool or spa heated.

Sounds complicated, but it's not! You can use the worksheet below to calculate approximately how long it will take your heater to bring your pool up to temperature. Keep in mind that the time will vary somewhat due to weather conditions during the period that the heater is in use.

Surface Area of Pool _____ (Length X Width X Average Depth)

= Pool Cubic Feet

X Gallons per cubic ft. 7.5

= Pool Gallonage

X Pounds per Gallon 8.3

= Pounds of Water _____ (BTU's Required to raise your pool 1° f)
(How many degrees do you want to raise the

X # of Degrees _____ temperature of the pool?)

= BTU's to heat pool

/ BTU Output of Heater _____

= Hours of operation _____ (Time it takes at 80° water, 80° air, 80%
Relative hum.)

X 60° Temperature factor 1.25

= 60° Air running time (Running time adjusted for cooler weather)

When you start up your new AquaCal Heat Pump for the first time to heat your pool, you must allow the unit to run continuously until the desired temperature is reached. This may take from several hours to several days depending upon the time of the year and the outside conditions. If you utilize a time clock or similar device to control the operating time of your pool system, you should temporarily override the device and allow it to run the pool or spa pump until the water reaches the desired temperature.

Your heat pump is a maintainer of heat and is sized to overcome the heat loss during the coldest period in which you are trying to heat. Once your pool is up to temperature, the time clock can be reset. The time your system has to run may need to be extended during the colder months when heat loss is at its greatest.

Since air is generally at its warmest during the day time, it is best to operate your heat pump during the daytime when there is more heat to transfer. So keep this in mind when you are trying to heat your pool.

NOTE: A **Call Flex** time clock manager can free you from having to change the settings on your time clock as the heat loss increases or decreases. Contact your installing dealer for details.

Pool/Spa Blankets

WARNING !

Failure to heed the following may result in permanent injury or death.

Improperly used, Pool-Spa solar blankets can poise a drowning risk to people and pets. Solar blankets are not safety covers. They are not designed to support the weight of a person. Never enter a pool until the solar cover is completely removed (*Under no circumstance should anyone swim under the blanket*). Follow all safety recommendations of the blanket manufacturer.

A solar blanket will significantly reduce your heating bills. You should check with the installing dealer to see if your heat pump was sized to be used in conjunction with a solar blanket or without one. Blanketed pools will typically lose only 3 - 4° of heat per night versus 8 - 10° overnight in an unblanketed pool. Reductions of 40 – 60% on heating bills can be achieved by using solar blankets.

Owner's Instructions

for

HP7 Digital Heat Pump Controller

The Information Contained Within This Booklet Has Been
Prepared Especially for Use by Home Owners and Property Managers



2737 24th Street North
St. Petersburg, FL 33713
800-786-7751

www.aquacal.com

AQ Tech-12-16-03

APPENDIX III



GENERAL DESCRIPTION of HP7 CONTROLLER

The HP7 is a microprocessor controlled thermostat with a 4-minute cycle on, call flex, and a 4-minute cycle off. The controller is designed to be used with a 240V AC power source and a 240V AC load. The controller is designed to be used with a 240V AC power source and a 240V AC load.

The HP7 offers a wide range of features including a 4-minute cycle on, call flex, and a 4-minute cycle off. The controller is designed to be used with a 240V AC power source and a 240V AC load. The controller is designed to be used with a 240V AC power source and a 240V AC load.

Additional features include a 4-minute cycle on, call flex, and a 4-minute cycle off. The controller is designed to be used with a 240V AC power source and a 240V AC load. The controller is designed to be used with a 240V AC power source and a 240V AC load.

The HP7 is an excellent choice for your next thermostat project.

HP7 CONTROLLER SPECIFICATIONS

Inputs:

- ◆ 5-pin pool heater Sensing (Thermistor)
- ◆ 2-pin hot water Sensing (Thermistor)
- ◆ Low pressure switch
- ◆ High pressure switch
- ◆ Air pressure switch
- ◆ Remote thermostat switching (Automatic thermostat switching from Pool to Spa)
- ◆ 3-position terminal block (for connecting (2) and (3) wire controllers produced by Jandy and Compool)
- ◆ 240V AC Power Supply (Only)

Outputs:

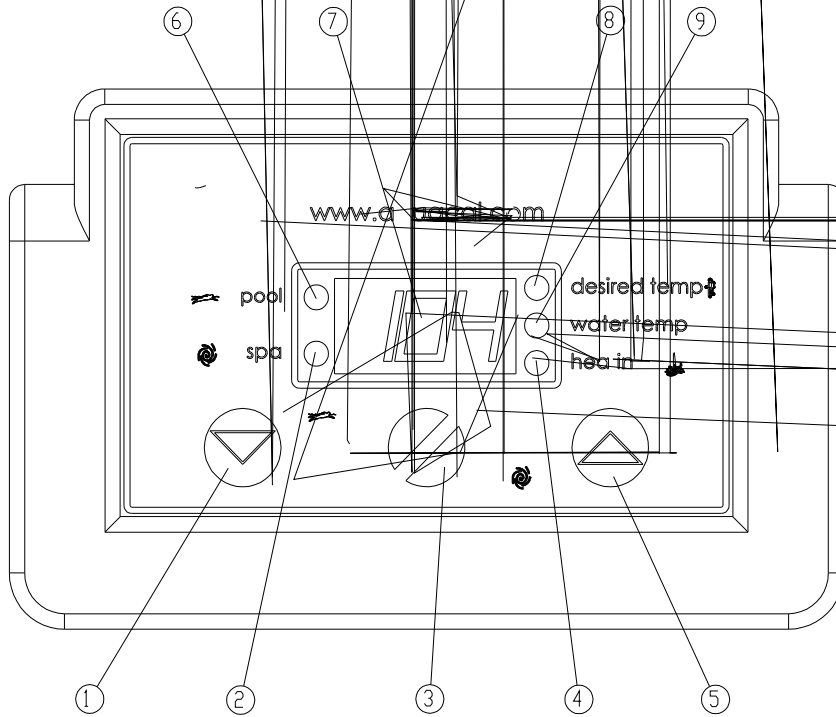
- ◆ On/Off Relay: 240V AC
- ◆ Fan Motor Relay: 240V AC
- ◆ Pressure Switch Relay: 240V AC

Control Features:

- ◆ On/Off Relay
- ◆ Call Flex
- ◆ Defrost Control
- ◆ 4-minute cycle on
- ◆ 4-minute cycle off
- ◆ Conformal Coating

CONTROL PANEL LAYOUT

(Appearance will vary between model lines)



5. Changing The Pool Temperature Set Point:

- A. Press **POOL / SA** key, select the Pool temperature set point. Press **SET** on the LCD and confirm your selection by **ENTER**.
- B. The pool temperature set point ranges from 10° to 50° (104°F in latest models). Press **UP** or **DOWN** arrow keys. The desired temperature can be selected by briefly depressing arrow keys, or by holding down the selected arrow key for 3 seconds.

6. Changing The Spa Temperature Set Point:

- A. Press **POOL / SA** key, select the SPA temperature set point. Press **SET** on the LCD and confirm your selection by **ENTER**.
- B. The spa temperature set point ranges from 100° to 104° by **UP** or **DOWN** arrow keys. The desired temperature can be selected by briefly depressing arrow keys, or by holding down the selected arrow key for 3 seconds.

7. Selecting Between °F And °C:

- A. Press both **UP** and **DOWN** arrow keys simultaneously [CF1] (press & hold the **ENTER** key) code appears.
- B. The [CF1] code displays, press **UP** or **DOWN** arrow key displays a (1) or (0). Select (1) for Fahrenheit or (0) for Celsius. Press **ENTER** key. Once the desired temperature has been selected, no longer than any button for 5 seconds, a 3-second tone will occur and the unit will return to normal mode. Press **POOL / SA** key to save the selection and start the next temperature [ULC] (see Lock code).

8. User Lock Code Option [ULC] :

This Option Explained:

When the user lock option is enabled, the LCD will lock out the user from the keypad. The user will not be able to access the keypad. When the user lock option is enabled, the user will not be able to change the temperature set points, Pool/Spa selection, C/F display changes, etc., will not be possible. The user lock option can be turned on or off as an option on the control console.

- A. Selecting User Lock Option:
- 1) Press **UP** or **DOWN** arrow keys; if [000] displays, the user lock option is already enabled. If [000] displays, proceed on to be "0" of the selection; otherwise, select "2" be "0";
 - 2) Press both **UP** and **DOWN** arrow keys simultaneously [CF1] displays a "1";
 - 3) Press **POOL / SA** key once, the [ULC] displays a "1";

Section L on (Continued):

- 4) [L] displays, press **[0]** a **[0]** re con o re ad o re an p o c e d. S e c t i o n () re n a b l e s e L o c o d e o n. T h e n, o n t h e a c c e s s c o d e n u m b e r, t h e s e e s a r e y o n c e. [L] (e n a b l e L o c o d e) t d s a y;
- 5) [ELC] displays, s e c t i o n o n a o r e y s o s e c a c c o d e n u m b e r f a c o y s e o c c o d e s "17". M o d e r e s s i n a n y b u t t o n s f o r 5 s e c o n d s a o r e c o n o o s a r e s e c t o n a n d r e n o t a o r e a n o d e. P r e s s t h e P o o / S a r e y t a s o s a r e s e c t o n a n d s e t t o t h e n e x t e n a a r e [CFO] (a r e x t o n s);
- 6) n c e t h e L o o n i s a s b e e n r e n a b l e d, t h e r e s s i n a n y r e y d s a y [000] (p r o m p t i n g t h e e n t r y o f t h e c o r r e c t l o c k c o d e n u m b e r). T o a n a c c e s s t h e c o n t r o l :

- a) s n i t h e L o o n a o r e c o r r e c t o c c o d e n u m b e r, t h e n :
- b) P r e s s t h e P o o / S a s e c o b u t t o n... t h e n a r e t h e a r e b e d s a y e d... o n o s e t t i n g s c a n n o t b e r e d a n d c h a n g e d a s d e s i r e d.
- c) A f t e r a r e o d o t a o x a r e y o (4) n e s, d n t h e n o b u t t o n s a r e b e e n r e s s e d, t h e c o n t r o l a o a c a y r e n o t o c c e d o d e. P o d e d t h e L s e c t o n s " t h e c o n t r o l t a y s f a s a f e n t h e o c c e d o d e.
- d) T o n o r e d r e q u i r e c o r r e c t o c c o d e n u m b e r, t h e L r e n a b l e d, c o n t r o l a d s r e n s t n o b e l o s s b e. **B e c e r t a i n t o r e c o r d y o u r s e c u r i t y c o d e i n a s a f e p l a c e.** T h e o c c o d e n u m b e r m a y b e c h a n g e d a n y n u m b e r o f t i m e s b y f o o n t h e n s t a t u s d e a r e a b o v e n t h e s e c t o n.

B. Use Loc ode s Ac a r e d, b Pass M u b e s M o n o n ("Back Door Entry"):

NOTE: S i o d t h e L o o n b e r e n a b l e d, a n d a c c o d e n u m b e r o n t h e a n t h e f a c o y d e a () b e n s a r e d b s n n o n, t h e f o o n t o c e d t a y b e f o o r e d o r e a n c o n t r o l o a n a c c e s s:

- 1) A n o f o r e o r e a r e a r e b r e a r e ;
- 2) S a m e o s y t e s s a n d t o d d o n t h e & o n a o s ;
- 3) o n n o d n a o b o n s d o n t h e n n o r e o r e b a c o n ;
- 4) r e o d n a o s d o n t o a o x a r e y 5 s e c o n d s ;
- 5) [CF1] a r e a ;
- 6) o o [ELC] b y s n t h e P o o / S a b o n. (D i s p l a y w i l l c h a n g e e a c h t i m e P / S b u t t o n i s p u s h e d.);
- 7) o o r e a o , s i o n c e. (T h e n u m b e r t h a t a p p e a r s i s t h e p r e s e n t, v a l i d l o c k c o d e n u m b e r);
- 8) I s r e c o r d e d t h e a c c e s s c o d e b e r e m e d o r e f a c o y d e a " " b e o r e r e x n t h e o a t. B y o n b a c o [ELC] y o u c a n t h e o n a o s o r e s t h e o c c o d e n u m b e r b a c o t d o n o " 7

See section 4 / Flex Options [4] ...
 (This feature will apply only if the heater installation includes a Call/Flex module.):

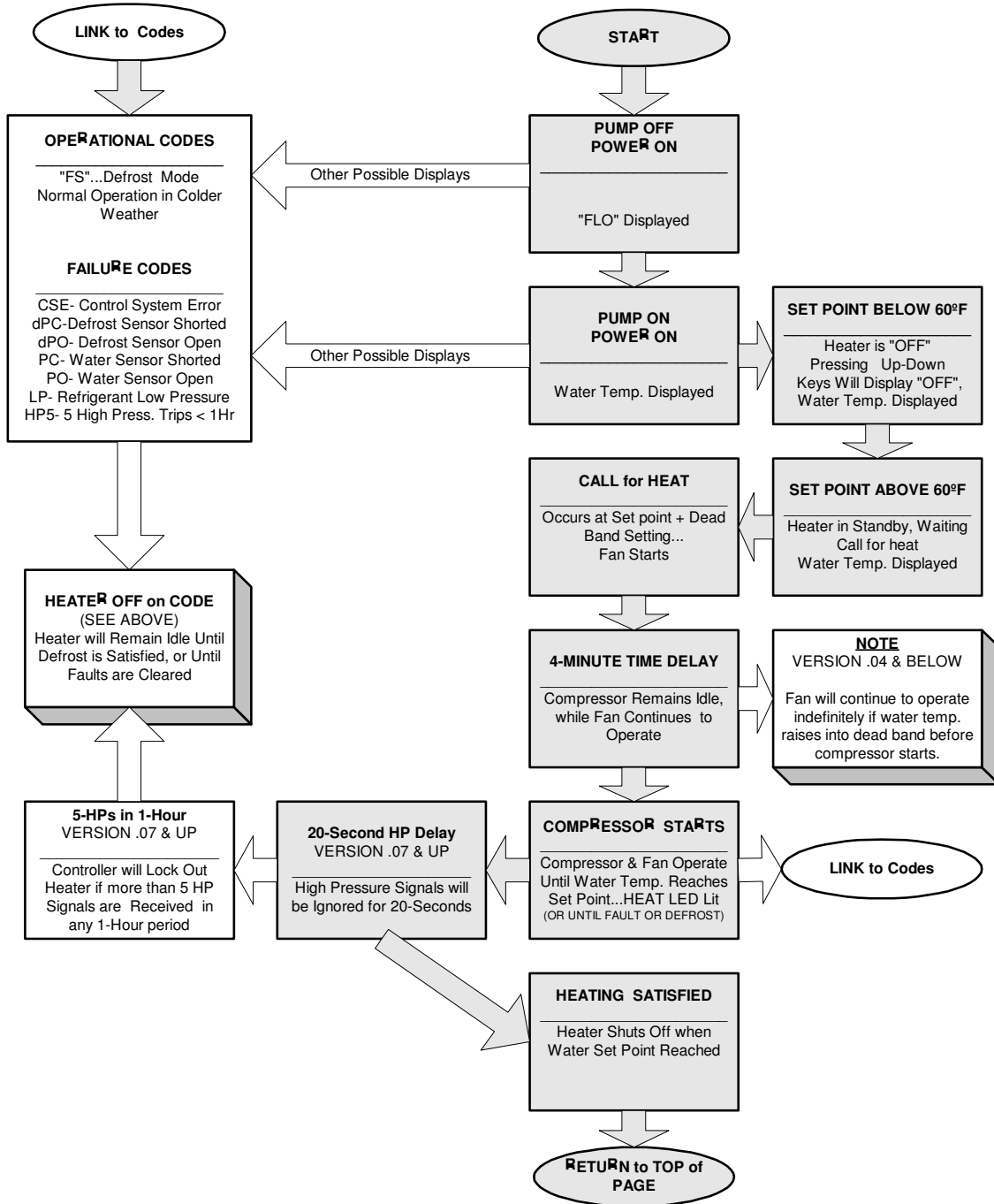
- A. Press button \uparrow and \downarrow a 0 seconds with a [CF1] display a 0 seconds / a 0 seconds with a 0 seconds.
- B. Press [CFO] (a Flex Options) code displayed, select 0 on a 0 seconds select, (0) to disable a Flex Options, (1) to enable a 0 seconds on, or (2) to enable a Flex Options. Press button / a 0 seconds displayed a 0 seconds and select a 0 seconds [LOC] (Service Lock code).
9. **Fan Speed Control...** (This option is not applicable to any current models. If option present, factory default setting of "80" MUST remain.)

OPERATIONAL DISPLAY CODES

Menu Codes	Description	Function
[FLO]	No water flow detected	<i>Displayed Code Message:</i> Appears whenever the circulating pump is off, or when the heater is not receiving correct water flow.
[OFF]	System is off	<i>Displayed Code Message:</i> Appears whenever system is off, and until temperature set point is raised above 60° F.
[CFI]	Celsius Fahrenheit Selection	<i>Programming Entry Point:</i> Allows temperature read-out to display either Celsius or Fahrenheit.
[ULC]	User Lock Code	<i>Programming Entry Point:</i> When activated steps to the next menu level [ELC] (enter lock code).
[ELC]	Enter Lock Code	<i>Programming Entry Point:</i> Allows end user to select a secret code so only authorized persons can change heater settings.
[CFO]	Call Flex Options	<i>Programming Entry Point:</i> When activated steps to the next menu level [CFS] (Call or Flex selection)
[Fan]	Two speed fan control	<i>Programming Entry Point:</i> This option is not applicable to any current model; leave at factory default of "80".
[LOC]	Entrance to Service Menu	<i>Service Entry Point:</i> The [LOC] code allows service personal the ability to enter a factory code and access service adjustable parameters in the software that may require calibration or adjustments. This menu is available only to authorized Service Personnel.



HP-7 (6200P) Sequence of Operation



M. Mauro, 10/14/03
M. Mauro, 10/14/03

CONTACTING the FACTORY...

Should you ever experience problems with your heater, or if you simply desire further information about your heater's operation, our Customer Support staff stands ready to assist. Please call us toll-free at: 1-800-786-7751.

**We Sincerely Appreciate Your Business....
Thank you for choosing AQUACAL for your swimming
pool and spa heating needs.**



2737 24th Street North
St. Petersburg, FL 33713
800-786-7751

www.aquacal.com

Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>