Pool Openings

If at the end of the previous season you disconnected the unions, be sure to connect them before you turn on the filtration system. Once the pool has been cleaned and the unit has been checked for leaks, turn the power on the heater and set the thermostat to the desired temperature.

Note: It may take up to three days to reached the desired temperature during the opening of the swimming season. Without a pool blanket, it may take even longer and may not even reach the desired temperature until later in the season.

Weather Conditions

As might be expected, weather conditions play a big part in the operation of the heater. Low outside ambient temperature, high winds, low relative humidity, and a large amount of shading on the pool will all have an effect on how much time it takes to heat the pool and how much time it might need to maintain the desired temperature. Once the outside ambient temperature drops below 50ºF, the heater may not operate.

Troubleshooting Guide

If the heater is not operating during the initial start-up, check to see if it has been installed properly, per this owner's manual. Make sure the breaker has been sized properly. The following are conditions to check before calling Aqua Pro Systems for a service:

Unit is running:

- Check the power light. Check to see if the breaker is set.
- Make sure the filtration system is on
- Make sure the thermostat is higher than the pool water temperature
- Make sure the filter is clean and is allowing enough water to flow
- Make sure the outside ambient temperature is higher than 50ºF
- Make sure the 5-minute time delay has passed

Unit is running but not heating:

- Check the air coming out of the top of the unit. It should be approximately 8ºF - 15ºF lower than the surrounding ambient air temperature. If not, call the factory for service.

Unit runs continuously:

- Lower the desired water temperature below the pool water temperature. If the unit is still running, call the factory for service.
- If the unit shuts off when the thermostat is lowered, it may be running continuously because it cannot reach the desired temperature. A pool blanket may be required to help reach this temperature. Also, the filter pump may need to run longer for the heater to reach the desired temperature.

Unit is cycling:

- Check the filters for proper water flow
- Check the evaporator coil for severe frost
- Unit could be low on refrigerant. At this point, call the factory for service and turn off the power to the heater to keep the cycling from damaging the compressor.

WARRANTY

For 5 years from the date of purchase, Wayne Water Systems, d/b/a AquaPro Systems

("AquaPro") will repair or replace, at its option, for the original owner any part or parts of its Heat Pumps ("Product"), excluding the heat exchanger and compressor, found upon examination by to be defective in materials or workmanship.

For 10 years from the date of purchase, AquaPro will repair or replace, at its option, for the original owner, the Copeland Scroll compressor, found upon examination by AquaPro to be defective in materials or workmanship. Warranty is limited to parts only in years 6 through 10 and is on a pro rated basis.

For 15 years from the date of purchase, AquaPro will repair or replace, at its option, for the original owner, the Titanium Heat Exchanger, found upon examination by AquaPro to be defective in materials or workmanship. Warranty is limited to parts only in years 6 through 15.

Please call AquaPro at 1-877-AQUASYS (1-877-278-2797) for instructions. Be prepared to provide the model number and serial number when exercising this warranty.

All transportation charges on Products or parts submitted for repair or replacement must be paid by purchaser.

All non-warranty service charges are the responsibility of the homeowner. Failure to pay for non-warranty service charges will void this warranty.

This Limited Warranty does not cover Products which have been damaged as a result of accident, abuse, misuse, neglect, improper installation, improper maintenance, or failure to operate in accordance with AquaPro's written instructions. All maintenance and service must be performed by service agents approved by AquaPro Systems. Any unauthorized alteration or repairs will void this warranty.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF PURCHASE. THIS IS THE EXCLUSIVE REMEDY AND ANY LIABILITY FOR ANY AND ALL INDIRECT OR CONSEQUENTIAL DAMAGES OR EXPENSES WHATSOEVER IS EXCLUDED.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusions or limitations of incidental or consequential damages, so the above limitations might not apply to you. This limited warranty gives you specific legal rights, and you may also have other legal rights which vary from state to state.

In no event, whether as a result of breach of contract warranty, tort (including negligence) or otherwise, shall AquaPro or its suppliers be liable for any special, consequential, incidental or penal damages including, but not limited to loss of profit or revenues, loss of use of the products or any associated equipment, damage to associated equipment, cost of capital, cost of substitute products, facilities, services or replacement power, downtime costs, or claims of buyer's customers for such damages.

You **MUST** retain your purchase receipt along with this form. In the event you need to exercise a warranty claim, you **MUST** present a **copy** of the purchase receipt at the time of service. Please call AquaPro Systems at 1-877-278-2797 for service or return authorization and instructions.

DO NOT MAIL THIS FORM TO AQUAPRO SYSTEMS. Use this form only to maintain your records.

MODEL NO._____ SERIAL NO. _____ INSTALLATION DATE _____

ATTACH YOUR RECEIPT HERE

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Heat Pump Pool & Spa Heater

Contents

Important Safety Instructions

READ AND FOLLOW ALL INSTRUCTIONS.

Safety Guidelines

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

⚠WARNING ***Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.***

⚠CAUTION ***Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.***

NOTICE ***Notice indicates important information, that if not followed, may cause damage to equipment.***

⚠WARNING

- The water in a pool or tub should never exceed 104ºF (40ºC). A water temperature in excess of 104ºF is considered unsafe for all persons. Lower water temperatures are recommended for extended use (exceeding 10-15 minutes) and young children.
- Excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy. Pregnant or possibly pregnant women should limit pool or tub water temperatures to 100ºF (38ºC).
- Alcohol, drugs, or medication should not be used before or during pool or tub use since their use may lead to unconsciousness with the possibility of drowning.

⚠CAUTION

- Obese persons and persons with a medical history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a pool or tub.
- Persons using medication should consult a physician before using a pool or tub since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.
- Prolonged immersion in hot water may induce hyperthermia. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6ºF. The symptoms of hyperthermia include dizziness, fainting, drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include: unawareness of impending hazard; failure to perceive heat; failure to recognize the need to exit pool or tub; physical inability to exit pool or tub; fetal damage in pregnant women; and unconsciousness resulting in a danger of drowning.
- Because the tolerance of water temperature-regulating devices may vary as much as ±5ºF (±3ºC), you should measure the water temperature at several locations using an accurate thermometer before entering a pool or tub.

SAVE THESE INSTRUCTIONS.

Installation Procedures

Unit Inspection

Inspect your unit very carefully before installing. Make sure there has been no damage to the evaporator fins or there are no punctures or oil-soaked areas on the box. This would indicate damage to the refrigeration system and should be rejected immediately.

THE UNIT MUST BE TRANSPORTED IN THE UP-RIGHT POSITION AT ALL TIMES AND MUST NOT BE DROPPED OR TAILGATED. DAMAGE TO THE UNIT DURING TRANSPORTATION IS NOT THE RESPONSIBILITY OF THE MANUFACTURER.

Unit Location

Once the unit has been inspected and cleared of any transportation damage, it is now time to locate the pool heater. It is very important to understand the location of the unit for the best performance of operation.

A minimum of 18" of clearance between the evaporator coils and shrubs, fences, walls, etc. must be maintained for adequate air intake.

A minimum of 5' of vertical clearance between the top of the unit and any roof overhang or other obstructions must be maintained in order to prevent the re-circulation of cold air back into the evaporator coils. This is to maintain the efficiency of the unit.

REMINDER: Keep your dated proof of purchase for warranty purposes! Attach it to this manual or file it for safekeeping.

A minimum of 24" of clearance between the front of the unit (access panel area) and any obstruction must be maintained to allow maintenance on the unit when necessary.

The unit should be located on a solid level surface, a minimum of 36"x 36" for proper drainage.

Make sure any sprinkler heads are not directly spraying water on the unit. While heat pumps are made for an outdoor environment, they are not designed to have sprinkler water constantly spraying them. **NOTE: This type of constant watering directly on the unit can void your warranty.**

Condensation drain holes are provided in all units for adequate removal of condensation and rainwater. **ALL UNITS WILL HAVE CONDENSATION. THIS SHOULD NOT BE MISTAKEN FOR A LEAK IN THE UNIT.**

Plumbing

NOTICE

Where freezing weather is encountered, the detachable connection/union (provided) must be utilized immediately adjacent to the heater to facilitate servicing and draining of the heat exchanger. **Draining is necessary to prevent damage to the condenser shell and coil due to the expansion of freezing water.**

The minimum water circulation capacity flowing through the pool heater is 25 gallons per minute and the maximum capacity is 80 gallons per minute.

Do not install a water shutoff valve in the piping from the outlet of the pool heater to the pool or tub. However, a check valve that does not include a shut-off feature may be installed for convenience during servicing.

A check valve or Hartford Loop is recommended between the unit and a chlorinator. Failure to do so may void the warranty.

Figure 1 shows the recommended installation layout.

Basic Heat Pump Operation

Electrical Connections

***WARNING** All wiring and electrical connections must be performed by a qualified electrician. Installations must be in accordance with local and national codes.*

***CAUTION** Overheating, short-circuiting and fire damage will result from inadequate wiring.*

All units are equipped with an electrical wiring schematic inside the electrical panel. If this is missing, please contact the factory at 1-877-278-2797 to obtain one.

All units are to be wired for 230 VAC, 1 phase. This unit requires a dedicated 50-amp breaker or time delay fuse.

Pool Heater is to be installed in accordance with Article 680 of the National Electrical Code (NEC), NFPA 70, and within the requirements of all local codes having jurisdiction.

Connecting to Remote Systems

This Pool Heater is compatible with all known remote systems in the industry. Figure 2 shows how to connect all of the remote systems to the Electronic Temperature Controller.

Connection to AquaLink, Compool, Hayward, Aqua Switch, and Intermatic Remote Systems:

- Bring two wires from the remote system to terminals 1 & 2 on Terminal Block 1 (TB1).
- The Temperature Control knob must be turned clockwise (highest temperature setting) for the remote system to operate the Pool Heater.

Manual Temperature Controls

Description

- The manual Temperature Control is designed to regulate pool and spa water temperature.
- There are two indicator lights on the control panel to display the current status of the unit.
- The thermostat knob may be adjusted to maintain the desired water temperature.

Indicator Lights

- There are two indicator lights on the front panel that display unit status. The GREEN light indicates that power to the unit is on. The RED light indicates that the unit is in heating mode.
- The RED light may become illuminated prior to heater start up. The RED light will become lit when the thermostat knob is set at or above the water temperature.

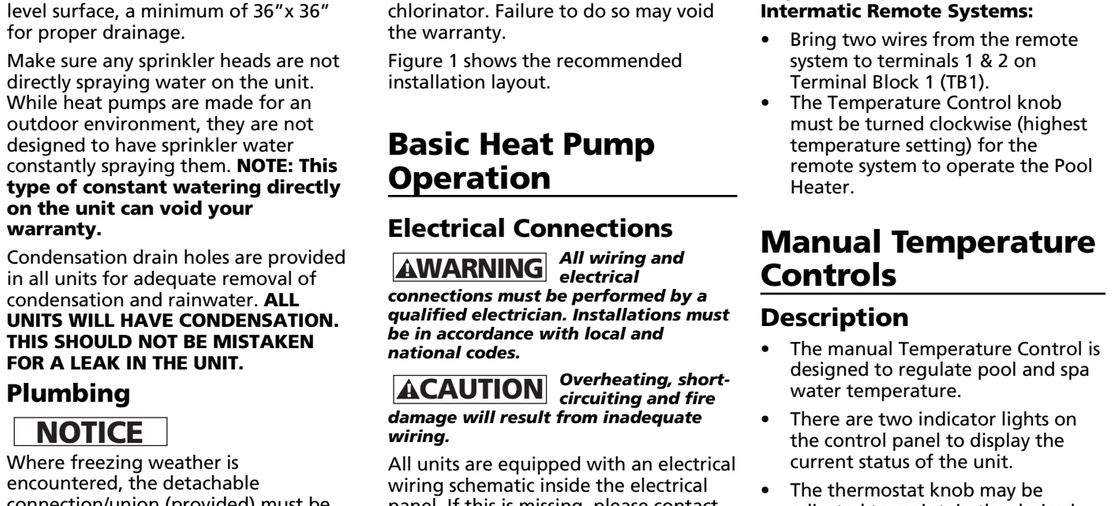

Figure 1 - Recommended installation layout

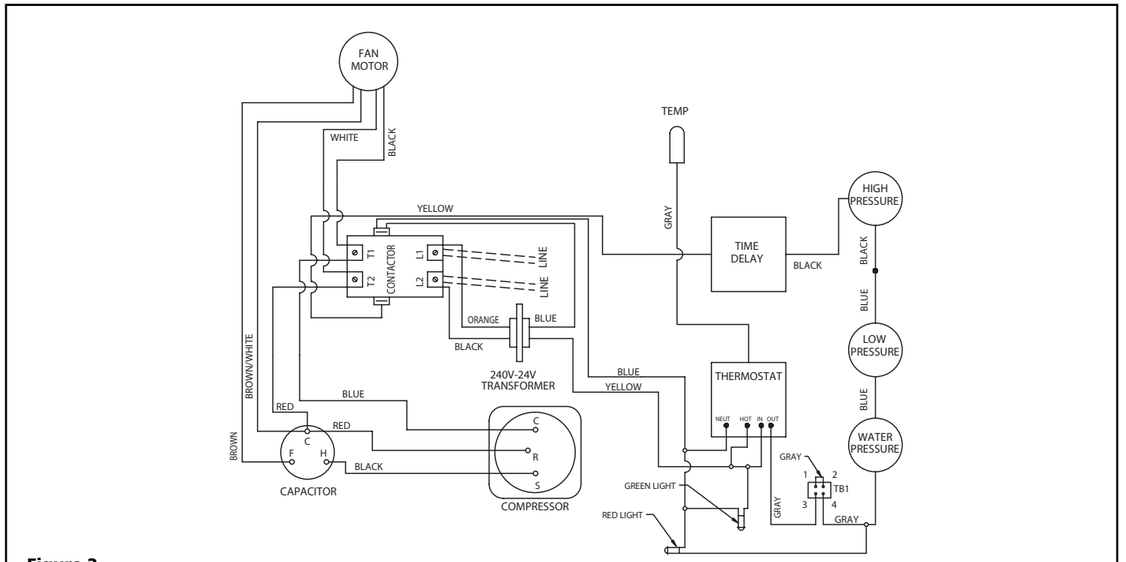

Figure 2

- The unit has a built in time delay. Every time the unit turns off there is a five-minute time delay until the unit may be restarted. The HEAT light may turn on during this delay cycle. Do not rotate the thermostat knob during this time delay. Rotating the knob during this cycle may reset the time delay, causing the unit to wait an additional five minutes prior to startup.

Water Temperature Set Point

- Temperature set point range is 45°F to 107°F. Rotating the thermostat knob clockwise will increase the temperature set point, while rotating counterclockwise will decrease the temperature set point.
- A floating thermometer may be placed in the pool or spa to monitor water temperature.
- To initially calibrate the thermostat to the desired set point, turn the thermostat knob fully clockwise. The unit will turn on and begin heating after a possible five minute time delay. Allow the unit to run until pool or spa water reaches the desired temperature. Slowly turn thermostat knob counterclockwise until the unit turns off. The unit will now maintain this water temperature, providing the circulation pump is running.

Application Guidelines

Maintenance

All heat pumps are designed for outdoor use. However, some maintenance is required to maintain the full life of the heater and is necessary to maintain your warranty. Annual maintenance should be scheduled to make sure blowing sand or falling debris is removed from the inside of the heater. Also, rinsing the coil down, monthly, with low water pressure will help keep the base of the unit clear of debris is a must. Do not use a high pressure washer. This can cause damage to your evaporator coils and will void your warranty. It is recommended that a licensed air conditioning specialist perform the annual planned maintenance on your heater. Call Aqua Pro Systems to have this scheduled.

***CAUTION** If you decide to rinse down the evaporator coils yourself, disconnect all power to the entire equipment pad before you rinse it. This must be done in order to prevent possible electrical shock.*

Condensation

All heat pump pool heaters will have condensation. It is typical to have as much as 6-8 gallons of condensation or water per hour, during a warm, humid day. Do not mistake this for a leak.

If you are not sure the water is a leak or is condensation, there are two ways to check this. First, use a pool test strip to see if there is any chlorine or bromine in the water. If there is, contact the factory for service. Second, you can turn off the heater, leave the filter pump running and see if the water stops. If you do not see additional water, then the original water was condensation.

Pool Blankets

A pool blanket has been proven to greatly reduce the heat loss in the pool and will save as much as 50% - 60% in your heating bills. During the start of the swimming season and the end of the season, if a pool blanket is not used, the heater may not be able to maintain your desired temperature without the use of the blanket.

Seasonal Shutdowns

At the end of your swimming season you may have freezing weather conditions. The unions (provided) must be disconnected to drain any water in the pipes. You must also drain the heat exchanger by removing the drain plug on the side of the unit. This plug can be removed by pushing in on the collar while pulling on the plug. Failure to do so may cause the heat exchanger to expand and crack. This will void your warranty.

If you live in an area that does not have freezing weather conditions but are subject to extended periods of non-use, allow the filtration system to continue to run water through the heater. Or you can drain the unit of all water.