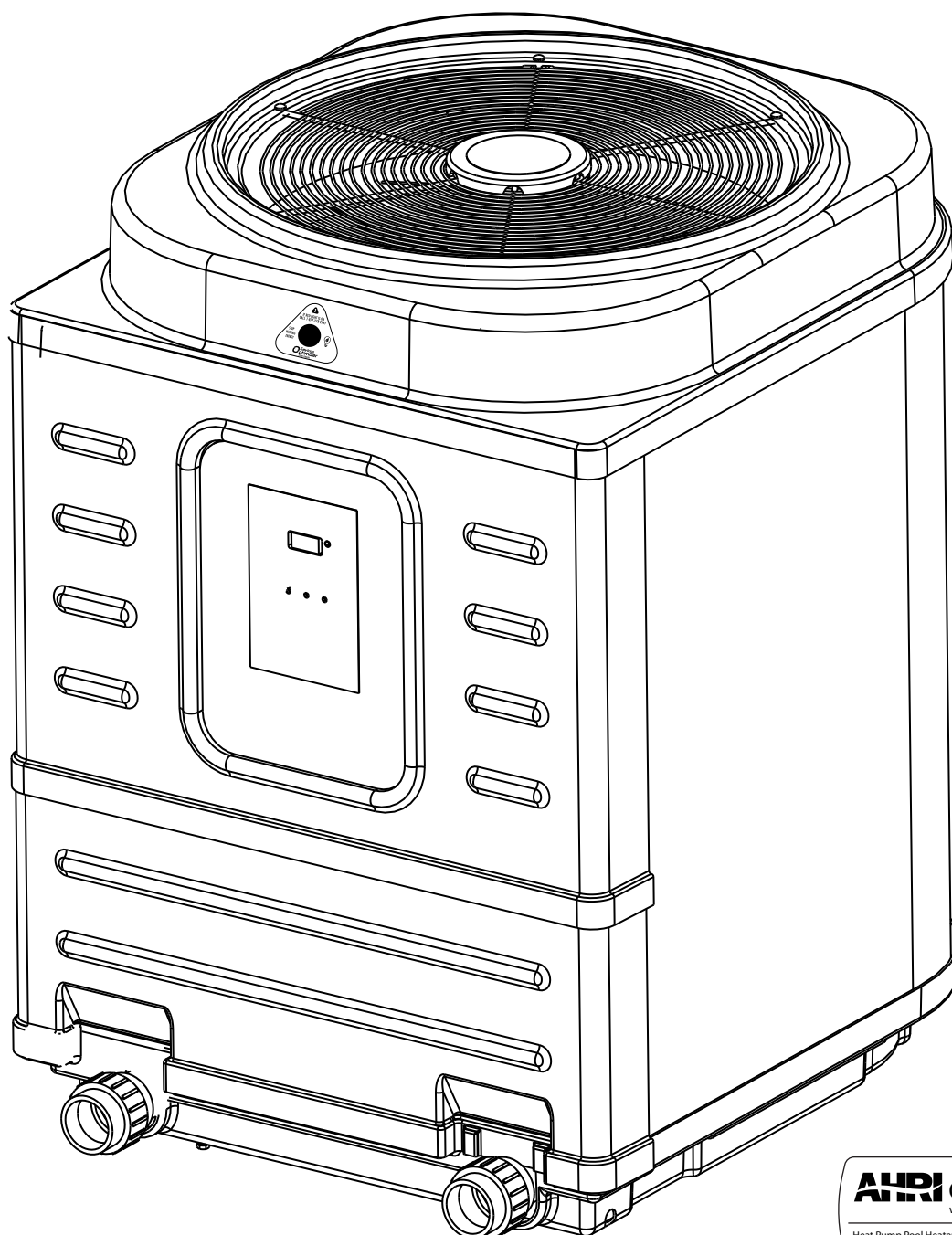


J-SERIES HEAT PUMP

// PROFESSIONAL GRADE HEAT PUMP

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AHRI Standard 1160

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JACUZZI® J-SERIES

Commercial Grade Pool Heat Pumps



JHX140



JHX127



JHX85



JHX60



Save up to \$2,000 annually.



Extend the life of the heat pump.



Reduce noise!



LEADING EDGE TECHNOLOGY

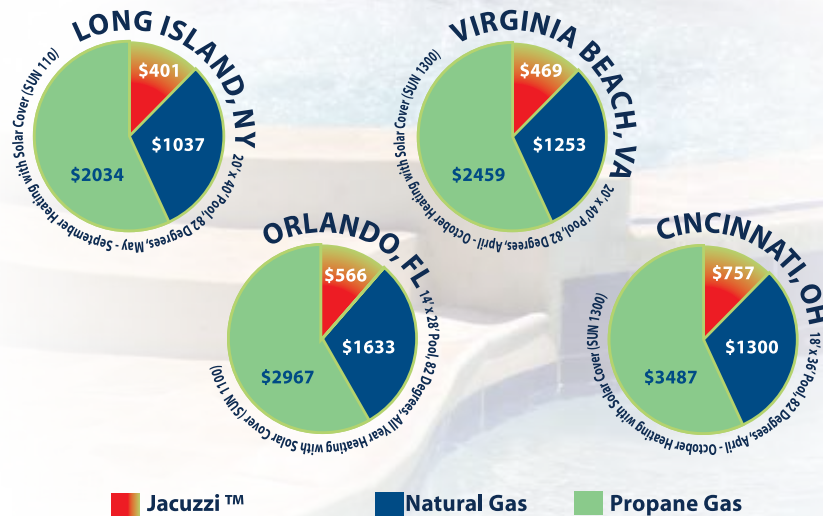
Consistently heat your pool and extend your swimming season with our full line of heat pumps! The most efficient way to heat your pool or spa! 100% pure, commercial-grade titanium heat exchanger, innovative silent series product design.

- Exclusive titanium heat exchanger is impervious to pool chemistry
- Air management system maximizes heat
- Small footprint - ideal for above ground pools!
- Compatible with remote system controls

SPECIFICATIONS

	JHX140	JHX127	JHX85	JHX60
LPM Part Number	85452	85451	85450	TBD
Heat Exchanger Construction	TITANIUM	TITANIUM	TITANIUM	TITANIUM
Temp Control	DIGITAL	DIGITAL	DIGITAL	DIGITAL
Ideal for Pools up to: (Gallons)	45,000	40,000	25,000	16,000
	2 & 3 Wire	2 & 3 Wire	2 & 3 Wire	2 & 3 Wire
	Performance Testing Results			
COP	5.8	5.8	5.8	5.8
80*/80*/80*	140,000	127,000	85,000	60,000
COP	5.4	5.3	5.4	5.4
80*/80*/80*	130,000	118,000	75,000	54,000
COP	4.0	4.0	4.0	4.0
50*/80*/63*	85,000	79,000	52,000	40,000
Voltage Required	208/230 V	208/230 V	208/230 V	208/230 V
Operating Current	32 AMPS	29 AMPS	26 AMPS	20 AMPS
Recommended Circuit Breaker	50 AMPS	50 AMPS	40 AMPS	25 AMPS
Maximum Circuit Breaker	60 AMPS	60AMPS	50 AMPS	30 AMPS
Refrigerant	R410A	R410A	R410A	R410A
Minimum Water Flow Rate	25 GPM	25 GPM	25 GPM	25 GPM
Maximum Water Flow Rate	80 GPM	80 GPM	80 GPM	80 GPM
Dimensions (WxDxH)	33" X 36" X 45"	35" X 35" X 43"	31" X 31" X 34"	31" X 31" X 31"
Net Weight (LBS)	310	290	206	190
Shipping Weight (LBS)	335	310	245	229

Save Up to 85% over the cost of gas heating!



iOptimizer

AUTOMATION



\$ Save Money

Our app tells you how much you're spending to heat your pool, so you can adjust your heating schedule and save!

▲ No Surprises

Something wrong with your heater or pump? Find out in real time with custom emails and notifications sent to your phone.

📶 Stay Connected

Monitor and manage your pool's heater and pump, 24/7, with the iOptimizer™ App or Control Centre - Wherever you are

💧 Jump Right In

Set schedules to ensure your pool is ready to enjoy when you're ready, or adjust it manually for an unplanned swim!

Attention Installer

NOTICE: Read all instructions before installation.

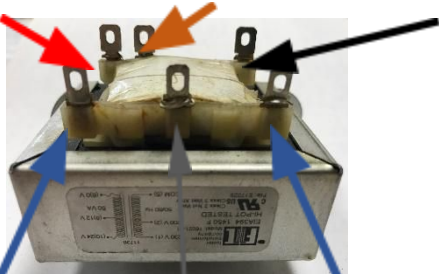
Unit is Pre-wired for 230 only!

If 208 Volts, please follow the instructions below:

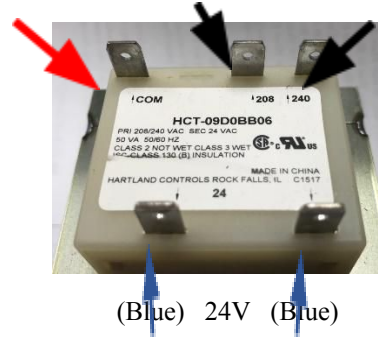
ALL INSTALLATION AND WORK MUST BE PERFORMED BY A CERTIFIED ELECTRICIAN AND PER ALL LOCAL BUILDING AND ELECTRICAL CODES.

WARNING: Before hooking up power to the main contactor, make sure the proper connections have been made to match the supply voltage on the supplied transformer. Using a voltmeter determine what the incoming voltage is. If 208V supply is being used, disconnect the factory lead (1) and reconnect it on (2) as noted in the pictures below. Failure to do so will result in voiding warranty, damage to the unit, fire, injury, or possibly even death.

(1) 230V (Red) OR (2) 208V (Orange) (5) COM (Black) COM (Red) **208V (Black) OR 230V (Black)**



(6) 0V (Blue) (8) 12V (Grey) (10) 24V (Blue)

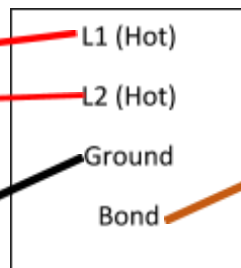


(Blue) 24V (Blue)

Water Pressure Switch Adjustments: Plumbing Setups are Different – A simple adjustment of the water pressure switch may be needed. If the “FLO” or “FL3” code appears when pool pump is on or if the unit does not indicate “FLO” when pool pump is off, please call 1-877-278-2797 for detailed instructions.

FIELD WIRING: NOTICE: To aid in field wiring, see the Figure 1 below. Incoming power is to be connected to L1 and L2 as shown. To insure proper connections tighten the screws securely to 40-45 in-lbs (4.5-5 N-m). After L1 & L2 Lugs are torqued, move wire side to side to settle wire strands, then torque again. Failure to do so may result in wires becoming loose which can result in voiding warranty, damage to the unit, fire, injury, or death.

Bonding & Grounding the Unit are Required. Danger: Failure to do so will result in voiding warranty, damage to the unit, fire, injury, or possibly even death.



Notice: Please remove these instruction from the Electrical area and store with proof of purchase.

Unit Setups:

Heat Pumps Require the Following:

(Please See Owner's Manual for All Details)

- Water Flow, Water Flow & Water Flow!!! (Require: 25 to 80GPM & Recommend: 40 to 80GPM) (Vary per Model)
- Proper Voltage (Switch Wire Location on Transformer if 208 Volts) See details on other side of this Document.
- Proper Ground and Bond per NEC Requirements.
- Level Pad & Allowance for Condensation Drainage
- Installed Outside with Clearance around the Heat Pump for Maintenance and Air Flow.
- No Roof Drainage on Heat Pump
- Any Additional Heater(s) (Solar, LP, Natural, etc...) must be Downstream of Heat Pump(s).
- Any Chemicals added (Chlorinators, Salt Generators, etc...) must be added Downstream of any Heater(s) with a Check Valve Separating them.

Commercial & Multiple Heater Setups:

- Water Flow, Water Flow & Water Flow!!! (Require: 25 to 80GPM & Recommend: 40 to 80GPM) (Vary per Model)
- *Please Note: Due to Health Code Requirements Requiring a Mandatory GPM, Some Circumstances Request Restrict the Water Flowing throughout the Heat Pump(s) to Increase the Total Required GPM for the System... aka: HP Code. This can Results in Improper Water Flow Flowing throughout the Heat Pump(s) which can Result in High Electric Bills, Voiding Warranty, Loss of Performance, Over Heating the Heat Pump(s), Damage to the Unit, Fire, Injury, or Possibly Even Death. It is Required to keep warranty to have a Commercial Water Flow Switch on All Commercial Heat Pumps. A Commercial Water Flow Switch will Help Guarantee a Longer, Better Life & Performance of your Heat Pump(s).
- Call 1-877-278-2797 to obtain a Commercial Water Flow Switch with part # CWFSK.
- Proper Voltage (Switch Wire Location on Transformer if 208 Volts) See details on other side of this Document.
- *** Failure to do so will result in voiding warranty, damage to the unit overtime due to Overheating Components, fire, injury, or possibly even death.***
- Proper Ground and Bond per NEC Requirements. *** Failure to do so will result in voiding warranty, damage to the unit, fire, injury, or possibly even death.***
- Level Pad & Allowance for Condensation Drainage.
- Installed Outside with Clearance around the Heat Pump for Maintenance and Air Flow. ***Please Note: When Installing 2 Heat Pumps side-by-side, the Coil Clearance increases to 24" between Heat Pumps.
- No Direct Roof Drainage on Heat Pump.
- Any Additional Heater(s) (Solar, LP, Natural, etc...) must be Downstream of Heat Pump(s).
- Any Chemicals added (Chlorinators, Salt Generators, etc...) must be added Downstream of any Heater(s) with a Check Valve Separating them.
- For any questions regarding Plumbing Recommendations, Please Call Manufacture.

Winterizing: After shutting Down the Pool and (or) Spa with All Water Removed from the Plumbing/ PVC, Disconnect the Supplied Unions on the Front of the Heat Pump. Use an Air Blower to Blow the Water Out of the Heat Pump. The Air Blower has to be High Volume, but Low Pressure (like a Shop Vacuum in Reverse). Blow into the Inlet until the Water stops coming out of the Outlet, then Blow into the Outlet until water stops coming out of the Inlet. Cycle back and forth until No Water coming out in Any Direction. Start the Unions back on the Heat Pump to Prevent Dirt, Debris, Foreign Objects and (or) Bugs, Snakes, Mice, Lizards, Frogs, etc... from Entering the Heat Pump Plumbing.

For More Details: Please Refer to Owner's Manual or Contact the Manufacture with the Supplied Number on your Heat Pump Serial # Decal with the Serial # Available. Thank you

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 and Spa Heater

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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.*

CALIFORNIA PROPOSITION 65

▲ WARNING *This product or its power cord may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.*

GENERAL SAFETY INFORMATION

- ▲ WARNING**
 - The water in a pool or tub should never exceed 104°F (40°C). A water temperature in excess of 104°F 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 100°F (38°C).
 - 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 98.6°F. 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 ±5°F (±3°C), 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.

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

For parts, product & service information
call **877-278-2797**.

Installation Procedures (continued)

THE UNIT MUST BE TRANSPORTED IN THE UPRIGHT POSITION AT ALL TIMES AND MUST NOT BE DROPPED OR TAILGATED. DAMAGE TO THE UNIT DURING TRANSPORTATION IS NOT THE RESPONSIBILITY OF THE MANUFACTURER. IF UNIT IS CLOSER THAN 18 INCHES, THE MANUFACTURER IS NOT RESPONSIBLE FOR BAD, WORN OR SEIZED FAN MOTORS AND CAPACITORS.

It is the homeowner's responsibility to remove any obstructions, at their own cost, before any scheduled maintenance work is performed. If not done, the homeowner is responsible for any additional cost of fees and, if not paid, the the warranty will be void.

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. See Figure 1 for location recommendations.

NOTICE

If unit is closer than 18 inches, the manufacturer is not responsible for bad, worn or seized fan motors and capacitors.

A minimum of 18 inches of clearance between the evaporator coils and shrubs, fences, walls, etc. must be maintained for adequate air intake. A minimum of 5 feet 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. A minimum of 36 inches of clearance between the front of the unit (access panel area) and any obstruction must

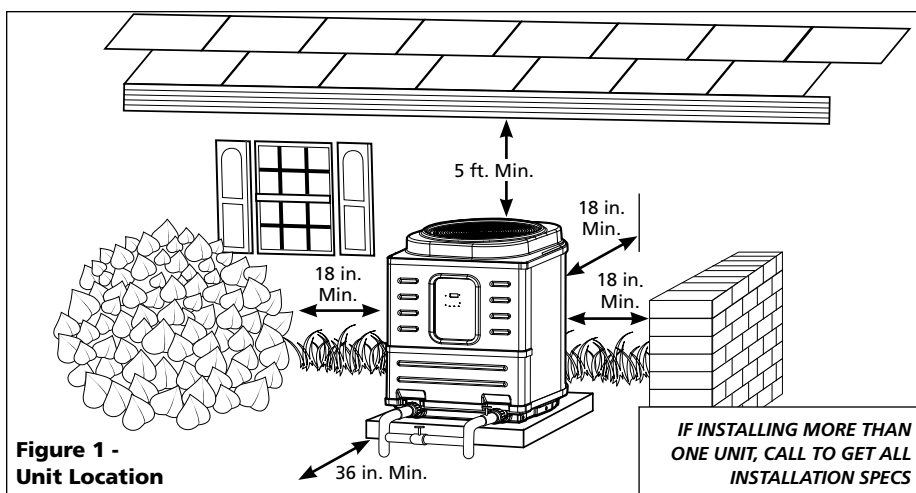


Figure 1 - Unit Location

be maintained to allow maintenance on the unit when necessary. The unit must be located on a solid level surface, a minimum of 36 inches x 36 inches 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 installed 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.

For proper winterizing, drain all water by blowing any remaining water through the inlet and outlet (both directions) with low pressure high volume air flow as in using a wet/dry vac in reverse. The minimum water circulation capacity flowing through the pool heater is 25 gallons per minute. The water capacity is 80 gallons per minute on all models. **Intentional setting of the water FLOW outside of these guidelines will void the warranty.**

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 is required between the unit and a chlorinator. The chlorinator must be downstream of the heat pump. Failure to do so may void the warranty.

If you have an in-floor cleaning system, please take note of any special plumbing requirements to operate all units effectively.

Figure 2 shows the recommended installation layout.

NOTE: Do not place chlorine tablets, or any other chemicals directly in skimmer basket. Doing this will void the warranty.

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.*

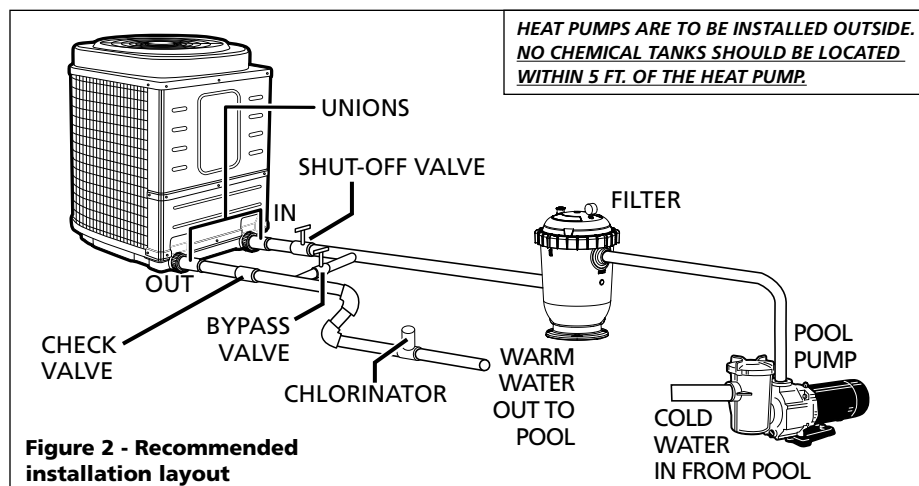


Figure 2 - Recommended installation layout

Installation Procedures (continued)

⚠ 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.

Units that are equipped with a 208/230 VAC transformer unit must be wired to match the supply power voltage. Refer to the wiring schematic in Figure 5 on page 8 for proper connectivity.

Failure to do so could cause overheating, short-circuiting, fire damage and will also void the Warranty.

Power L1 and L2 leads are connected to the right side of contactor. These are to be torqued to 40 in./lbs.

⚠ DANGER

Failure to torque the L1 and L2 leads may cause overheating or short-circuiting which could result in fire damage, serious injury or even death. Failure to torque the leads will also void the warranty.

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.

Electronic Temp. Controls

DESCRIPTION

- The control located on the front of your heat pump has a large three-character display for the water temperature, set points, and diagnostics (see figure 3 for front panel appearance). The three button keypad includes SET, UP arrow, and DOWN arrow buttons. LED indicators next to the display show if the heat pump is in the pool mode or in the spa mode and if the unit is running.

BUTTONS

Press the SET button to change between modes and use the up and down arrows to change the selected mode's settings.

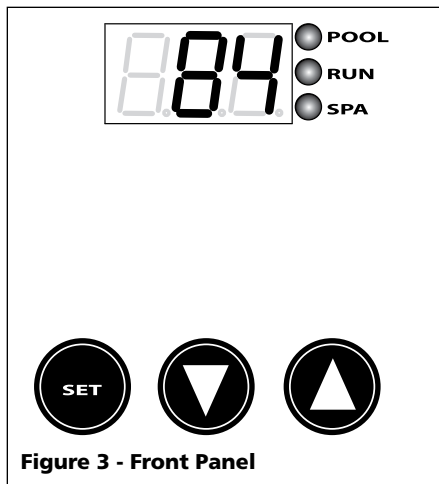


Figure 3 - Front Panel

Modes available are:

POL - allows you to change the pool water temperature set point

SPA - allows you to change the spa water temperature set point

P-S - changes between pool and spa settings. LED's on front panel will indicate current mode selected.

F-C - display temperature in Fahrenheit or Celsius

TCE Units only:

FIL - used to set system run time.

H/C Units only:

WATER TEMPERATURE SET POINT

Temperature set point range is OFF, and 51°F to 95°F for POL mode. For SPA mode, set point range is OFF, and 61°F to 104°F. Pushing the UP arrow or DOWN arrow buttons will prompt the control to display the current set point in the current mode. Continuing to press the UP or DOWN buttons will allow the set point values to scroll until the desired set point is reached. Once the new set point has been reached, stop pressing the UP or DOWN buttons. Once the unit toggles back to the current water temperature display, the set point is entered. The controls have a feature called "Set Point Memory Retention". If the power is removed from the unit, it retains the last set point displayed.

CONNECTING TO A REMOTE SYSTEM

This Pool Heater is compatible with all known remote systems in the industry. Please view the wiring diagram on page 8 to see how to connect remote systems to the Electronic Temperature Controller.

For 2 wire remotes:

1. Push set button to enter user's menu.
2. Bring up "POL" setting and arrow temperature down until pool setting reads "off".
3. Bring up "SPA" setting and arrow temperature up until spa setting reads 104.
4. Set unit to the "POL" mode.
5. Connect remote system with 2 wires to the P/S terminal on control board (see specific model wiring diagram).

For 3 wire remotes:

1. Push set button to enter user's menu.
2. Bring up "POL" setting and use arrows to select desired pool temperature.
3. Bring up "SPA" setting and use the arrows to select the desired spa temperature.
4. Set unit to the "POL" mode.
5. Connect the common and high (or spa) wires to the "P/S" terminals on control board (see specific model diagram). Low or pool wire does not get connected.

HIGH TEMPERATURE LOCK OUT

Your heat pump includes a special feature to "lock" the high temperature settings. This eliminates the need for a thermostat lock-box. This prevents unauthorized persons from adjusting the heat pump above these desired limits. To activate this feature, please call 877-278-2797 during business hours 8 AM to 5 PM EDT Monday through Friday and we will be glad to assist in setting up this feature.

FEATURES

All applicable features to these models have been covered in the previous sections. Other models' features are discussed in designated sections, subsequent to this section.

Installation Procedures (continued)

Installation Requirements

Installers must use certified Electricians and must follow NEC requirements, local laws and codes. Example in NEC 680.26 Bonding - "The metallic parts of a pool, outdoor spa or hot tub specified in 680.26(B) shall be electrically bonded to a common bonding grid by a solid conductor not smaller than 8 AWG... ..(5) Metal Wiring Methods and Equipment. Metal piping, fixed metal parts, observation stands, towers, platforms, or diving structures, as well as metallic surfaces of electrical equipment located within 5 ft". Please Note: Always use a certified electrician and follow all local laws and codes along with NEC. Some local codes are more strict, example: In Florida: all metal items within 10 ft. not 5ft.

***For Multi-Unit Install, Refer to Diagram at End of Document**

SELECTING FUNCTIONALITY OF UNIT

TCE / TCO MODELS

(Serial # would have TCE if your model applies).

This unit is capable of operating as a Time Clock Override (TCO) or as the Time Clock Eliminator (TCE). If you already have a time clock on your swimming pool and would like to maintain its normal operation with the added benefit of a heat pump time clock override – please review the section for the Time Clock Override. If you do not own a time clock for your pool system - please review the section for the Time Clock Eliminator.

TIME CLOCK ELIMINATOR (TCE) OPERATION

Please read the functions of this feature carefully.

⚠ WARNING

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

This section allows you to run the heat pump at set intervals during the day. If you have a time clock, and would like to use it please refer to the Time Clock Override section.

For the TCE feature to work, your pool pump must be wired to the heat pump

See figure 5 for wiring the TCE feature

• **This unit is prepared at the factory with the TCE feature installed, but set to the "off" position in the "FIL" mode. You will need to set the hours of run time for the pump and filter system. See "activating and setting system run time" below.**

• The function of the TCE is done through a timing sequence of 6 periods per 24 hours. You select the hours for your required filter pump run time, and the heater takes care of the rest. It does this by dividing the system run time equally over the 6 periods, turning the pump on for 1/6th of the specified run time and off the remainder of the period unless additional heating is required. The heater will always operate the system on a daily basis for the amount of run time you have selected. The timing sequence begins at the initial start up.

• If your pool is at or above the desired operating temperature, the heater will run the system the desired hours each day and spread the time out evenly between the 6 periods. This makes for better filter operation and allows the heater to update the water temperature 6 times per day.

• If your pool needs heat, the heater will continue to run the system until the desired temperature is met. If the amount of run time exceeds a period's run time, the excess time will be subtracted from the next run period(s). Please note that on cold and / or windy days, the unit could run for long times to generate and maintain the desired pool temperature. Please see the "application" section about "pool blankets" to help maintain your pool's temperature.

• The timing function built into the TCE will always run the heat pump for 15 minutes every 4 hours to determine if more heat is needed to maintain the pool's desired temperature - even if all of the available run time was used in previous cycles. This provides a couple of added benefits. Pools will lose most of their heat at night if left uncovered, however, since the unit is checking for and adding heat when needed, it prevents long recovery times when compared to non-TCE units. The other benefit is that some states and electric utility companies offer a discount for off-peak usage of electricity. Please contact your electricity provider if you have questions.

• Example of TCE operation – you require the system to run for 12 hours to meet your pool filtering needs. This means for each of the 6 periods, the heater will run the system for 2 hours and then turn off for 2 hours. If the system needed to run for 3 hours in one of the periods to reach the desired pool temperature, the next period would be 1 hour on and 3 hours off unless additional heating is needed. The cycle continues for 6 periods and renews at the end of each 24 hours. Please call 1-877-278-2797 if you need further clarification of this feature's operation.

Activating and Setting System Run Time - TCE Operation

• To set the run time of the system, push the "SET" button repeatedly until "FIL" displays. Then using the "up" and "down" arrows, you can select how many total hours a day you want the system to run for your pump and filtration needs. The range of hours is "off" to 2, 3, 4,... up to 23 hours to "on". As described before, the run time will then be calculated and spread out over the 6 time periods for 24 hours. Selecting the "on" position will run the pump and filter system continuously. The unit leaves the factory with the "FIL" mode set to "OFF".

TIME CLOCK OVERRIDE (TCO) OPERATION

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

This section allows you the option of using an existing time clock with the heat pump. If you do not have a time clock, please refer back to the Time Clock Eliminator section.

The pump must be connected to the heat pump and also the time clock for the Time Clock Override feature to work correctly. See figure 4 on page 5 for the optional TCO wiring schematic and electrical connections.

- This unit is prepared at the factory with the "FIL" mode set to the "off" position. You will need to set the heat pump's hours of run time in the "FIL" mode to "2" hours. See "activating and setting system run time" below to set the run time. Leave your time clock set to the desired pump and filter operation time. This will enable the heat pump and filter system to run the desired hours of the day and also provide the benefit of checking if heat is needed every 4 hours. It will do this by running the pump and filter system for 15 minutes. If heat is needed, it will continue to run until the pool has reached the set temperature. If no heat is needed, the system will turn off and continue checking for heat every 4 hours. This provides a couple of added benefits. Pools will lose most of their heat at night if left uncovered, however, since the unit is checking for and adding heat when needed, it prevents long recovery times when compared to non-TCO units. The other benefit is that some states and electric utility companies offer a discount for off-peak usage of electricity. Please contact your electricity provider if you have questions.

ACTIVATING AND SETTING SYSTEM RUN TIME – TCO OPERATION

To set the run time of the system, push the "SET" button repeatedly until "FIL" displays. Then using the "UP" and "DOWN" arrows, set the hours to "2". The range of hours is "off" to 2, 3, 4.... up to 23 hours to "on".

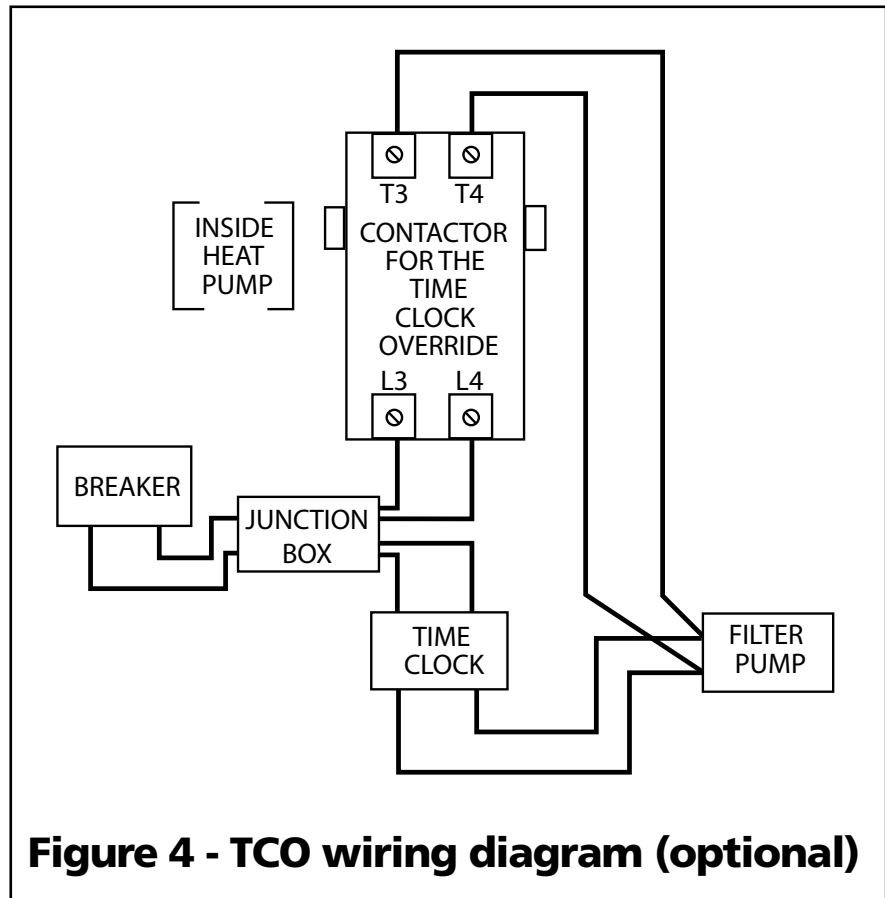


Figure 4 - TCO wiring diagram (optional)

By selecting "2" the heat pump will run every 4 hours for 20 minutes checking if heat is needed. **The unit leaves the factory with the "FIL" mode set to "OFF".**

GROUNDING & BONDING

Grounding and bonding are required for personal safety and unit protection purposes. Please follow all applicable laws and regulations.

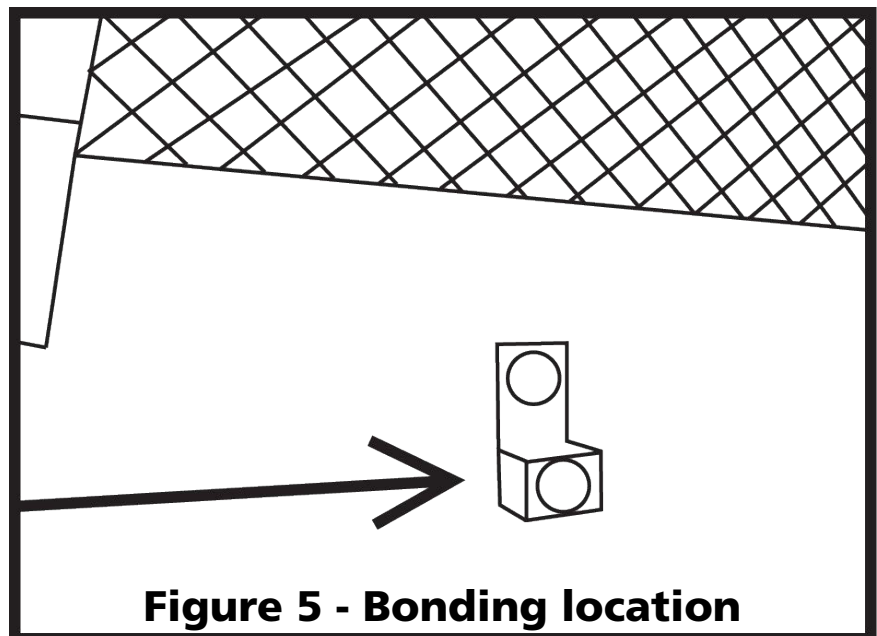


Figure 5 - Bonding location

Application Guidelines (All Models)

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.

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.

To maintain a valid warranty, a record of annual maintenance must be kept and provided when redeeming the warranty.

Annual maintenance includes cleaning the coils, compressors, filters. Clean all rust from the compressor and filter drier then coat it with a layer of paint. **THE WARRANTY DOES NOT COVER FAILURE FROM RUST.** The unit must be rinsed once a month with CLEAN, LOW-PRESSURE water.

The warranty will cover corrosion if you live within 10 miles of a body of Salt Water and only if there is a record showing that the unit was sprayed monthly.

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% - 80% in your heating bills. During the start of the swimming season and the end of the season the heater may not be able to maintain your desired temperature without the use of the pool blanket.

SEASONAL SHUTDOWNS

At the end of your swimming season you may have freezing weather conditions. After shutting down the pool and/or spa with all water removed from the plumbing/ PVC, disconnect the supplied unions on the front of the heat pump. Use an air blower to blow the water out of the heat pump. The air blower has to be high volume, but low pressure (like a shop vacuum in reverse). Blow into the inlet until the water stops coming out of the outlet, then blow into the outlet until water stops coming out of the inlet. Cycle back and forth until no water coming out in any direction. Start the unions back on the heat pump to prevent dirt, debris, foreign objects and/or bugs, snakes, mice, lizards, frogs, etc. from entering the heat pump plumbing.

Failure to do so may cause the heat exchanger to expand and crack and 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.

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 reach the desired temperature during the opening of the swimming season. Without a pool blanket, it may take even longer and may not reach the desired temperature until later in the season.

WEATHER CONDITIONS

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 50°F (38°F for all other units with a digital control board), 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 for a service:

DIAGNOSTICS

The display located on the heat pump has diagnostic codes, which help explain any reason for the heater not to be operating properly. The following are the diagnostic codes and the reasons for them appearing:

FLO: This code means "Pressure Switch" or water pressure switch. This means there is not enough water pressure to activate the water pressure switch. The cause could be from a clogged filter or a manual by-pass is in the wrong position and is not allowing water into the heater. Once the filter has been cleaned or the by-pass has been changed to allow water to flow through the heater, the FLO display will go away and the water temperature will appear on the display.

EL3: This code means that water flow was lost 3 times within 24 hours or unit is programmed wrong. Check the system for flow obstructions or contact us at 1-877-278-2797 for assistance.

HP: This code means "High Pressure" or high pressure switch. Either there is low water flow or high ambient temperature or both. Again, the filter could be clogged and not allowing enough water flow to pass through the heat exchanger and allow the heat to be taken away fast enough, or a by-pass is not in the proper position. Once the filter has been cleaned or the by-pass has been re-positioned, the display should return to the temperature of the water.

LP: This code means "Low Pressure" or low pressure switch. Either the outside

Troubleshooting Guide (continued)

ambient temperature is below 50°F (38°F for all other units with a Digital Control Board), which is too low for the heater to operate, or the unit is low on refrigerant. Once the outside temperature has risen above 60°F, and the LP code remains, call the factory for repair.

PSd: This code means there is a pool sensor defect. Please call to arrange service for the heat pump.

DSd: This code means there is a defrost sensor defect. Please call to arrange service for the heat pump.

LP3: This is like the "LP" described above, however the unit has shut down because this fault has happened 3 times within a 24 hour time period. If the ambient temperature is below 50°F (38°F for all other units with a digital control board), the problem will most likely persist until the ambient air temperature rises above 50°F. Pressing any of the buttons on the front control panel will restore the unit to its normal operating mode. If the ambient air temperature is not the issue and the heat pump continues to display "LP" or "LP3", please call to arrange service for the heat pump.

HP3: This is like the "HP" described above, however the unit has shut down because this fault has happened 3 times within a 24 hour time period. Please check your pool's plumbing, valves and pump / filter system for blockages or flow restrictions, as this is most likely the cause for the fault. Pressing any of the buttons on the front control panel will restore the unit to its normal operating mode. If your pump and

filter system is working normally and there are no flow restrictions and the heat pump continues to display "HP" or "HP3", please call to arrange service for the heat pump. Please note, we will not be responsible for non-warranted service calls.

FS: This code has the following sequence:

- When first displayed, the unit has started the defrost cycle and will reverse operation for 2 minutes. If unit is at acceptable temperature after the defrost cycle, it will go back into heating mode.
- If coolant temperature is still too low after the initial 2 minute defrost cycle, unit will shut off the compressor and run only the fan for 60 minutes. If unit is at acceptable temperature after the 60 minutes, it will go back into heating mode.
- If coolant has not reached the desired temperature after the 60 minutes, fan only mode, unit will shut down and display "FS".
- Unit will resume normal operation after ambient temperature reaches acceptable operating temperature.

FL3: This code means that water flow was lost. Check the system for flow obstructions.

Unit is not running (All Models):

- 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 50°F (38°F for all other units with a Digital Control Board)
- Make sure the 5-minute time delay has passed
- Make sure the 208/230 VAC transformer is wired to match in coming power levels.

FOR TCE UNITS

- Make sure time setting, in "FIL" mode, is not set to "OFF".

Unit is running but not heating:

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

Unit is running but not cooling:

- After 5 minutes, Check the air coming out of the top of the unit. It should be approximately 8°F to 15°F higher than the surrounding ambient air temperature. If not, call for service

Unit runs continuously:

It may be running continuously because it cannot reach the desired temperature.

- Lower the temperature setting below the pool water temperature. Unit should turn off. If the unit is still running, call for service.
- 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.

FOR TCE UNITS

- Make sure the setting is not set to "ON" position in the "FIL" mode.

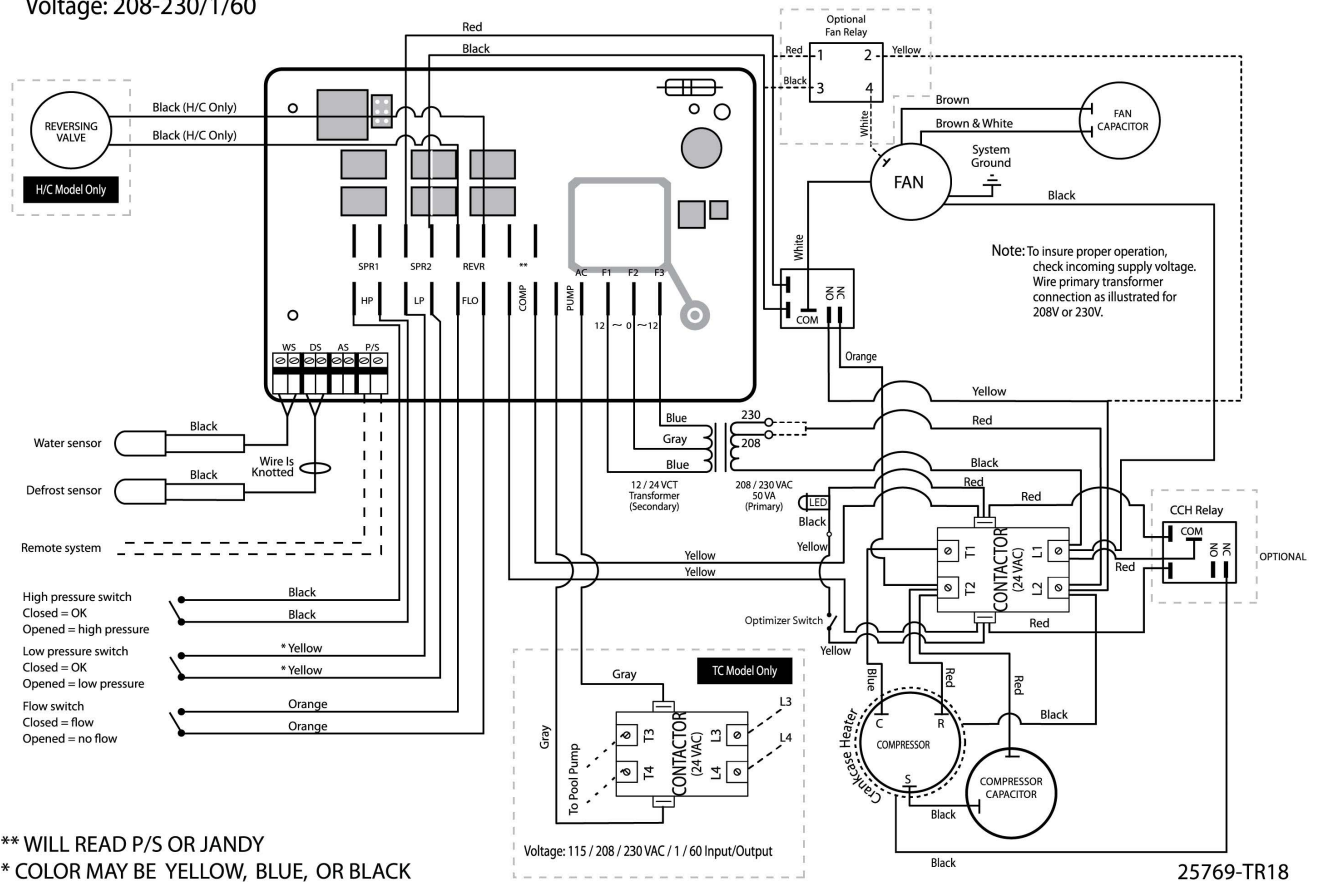
Unit is cycling:

- Check the filters for proper water flow
- Check the evaporator coil for severe frost
- Unit could be low on refrigerant.

At this point, call for service and turn off the power.

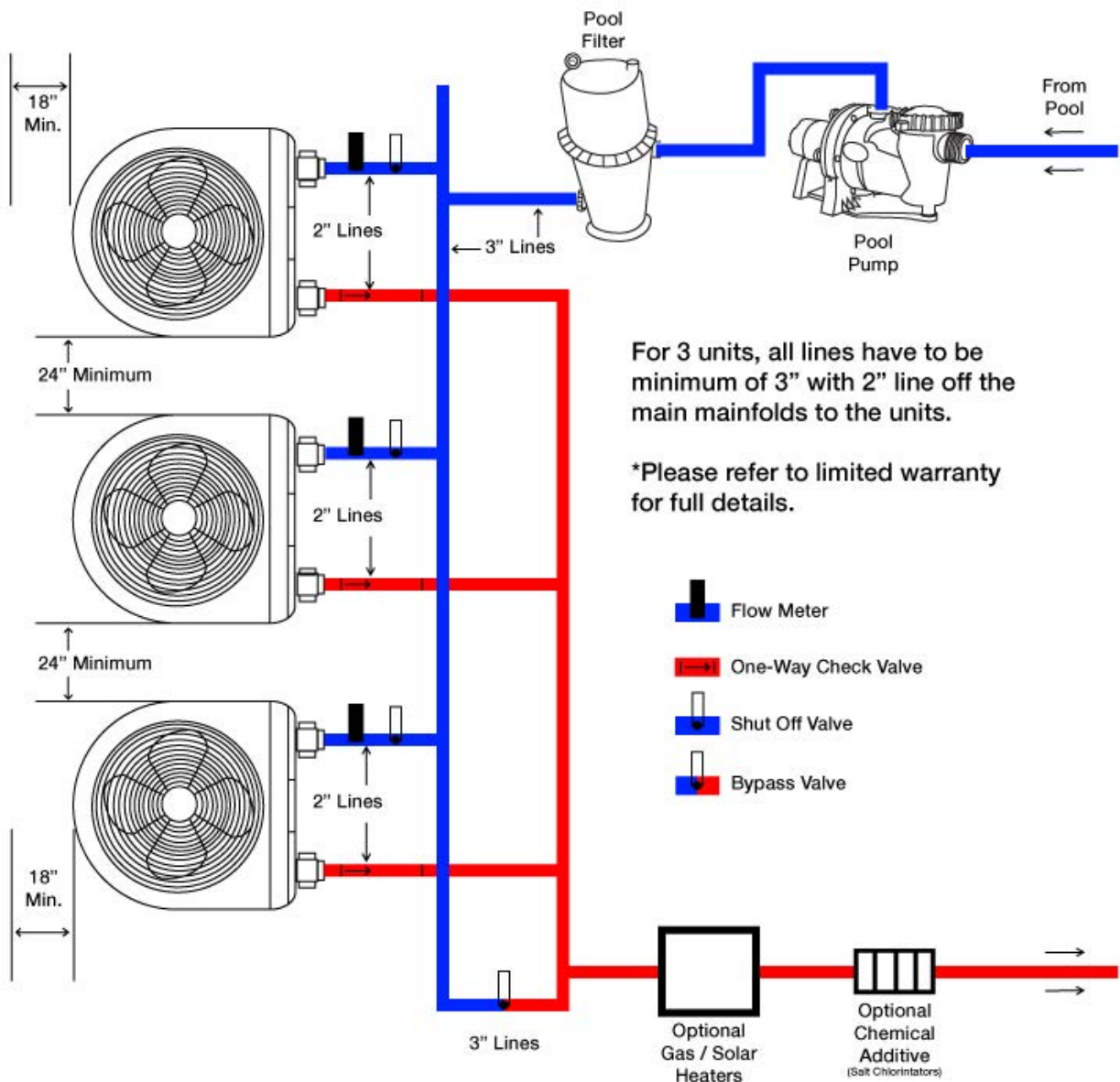
Voltage: 208-230/1/60

SEE MANUAL FOR REMOTE WIRING INSTRUCTIONS



** WILL READ P/S OR JANDY

* COLOR MAY BE YELLOW, BLUE, OR BLACK



[illegible]

LIMITED WARRANTY

Heating Solutions manufactures its products with the highest standards of workmanship, using the best materials available through state of the art processes. Heating Solutions warrants its products as follows:

LIMITED WARRANTY: HEATING SOLUTIONS WARRANTS ITS PRODUCTS TO BE FREE FROM DEFECTS IN MATERIAL AND/OR WORKMANSHIP FOR A PERIOD OF TWO (2) YEARS (PARTS ONLY) FROM ORIGINAL DATE OF PURCHASE.

SPECIFIC PRODUCTS WARRANTIES (FROM DATE OF PURCHASE):

PRODUCT	LIMITED WARRANTY	EXCEPTIONS	EXCEPTIONS
J-HI27C HEAT PUMP	2 YEARS	O-RINGS	HEAT EXCHANGER, REFER CLAUSE 6 BELOW

Exceptions that could result in denial of a warranty claim:

1. Damage caused by careless handling, improper repackaging or shipping.
2. Damage due to misapplication, misuse, abuse or failure to operate equipment as specified in the owner's manual.
3. Damage caused by failure to install products as specified in the owner's manual.
4. Damage due to unauthorized product modifications or failure to use original replacement parts.
5. Damage caused by negligence or failure to properly maintain products as specified in the owner's manual.
6. Damage caused by failure to maintain water chemistry in conformity with the standards of the swimming pool industry for any length of time.
7. Damage caused by water freezing inside the product.
8. Accidental damage, fire, acts of God or other circumstances outside the control of Heating Solutions.

WARRANTY OBLIGATIONS OF HEATING SOLUTIONS

Should a defect in workmanship and/or material in any item covered by this warranty become evident during the term of the warranty, then upon the consumer following the procedures set forth below, Heating Solutions, or its authorized service representative, will, at its option, repair or replace such item or part at its own cost and expense.

Heating Solutions is not however responsible under this warranty for any cost of shipping or transportation of the equipment or parts thereof to or from the service representative. Heating Solutions is not liable for any loss of time, inconvenience, incidental expenses such as telephone calls, travel costs, labor or material charges incurred in connection with the removal or replacement of the equipment or any other incidental or consequential damages.

This warranty is void if the product is repaired or altered in any way by any persons, agents or representatives other than those authorized by Heating Solutions. Expendables, including but not limited to, refrigerant, recovery of refrigerant or transportation for components are not covered under this Limited Warranty. Heating Solutions, at its sole discretion, reserves the right to provide a replacement product or part of equal value in lieu of repair.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Except as stated in this section, Heating Solutions, its subsidiaries and affiliates make no warranties, express, implied or statutory as to any matter whatsoever. In particular, any and all warranties of merchantability or fitness for a particular purpose and non-infringement of a third party rights are expressly excluded.

This warranty extends to the original residential owner only, beginning on the date of purchase and is not enforceable by any other party. This warranty does not cover commercial facilities which are defined as any facility other than a

single family dwelling. Proof of purchase receipt will be required to execute any warranty claim. Original owner agrees to prepay all shipping charges, if applicable or necessary.

PROCEDURE FOR A WARRANTY CLAIM

In order to obtain the benefits of this warranty, the consumer who made the original purchase must visit their local Leslie's Swimming Pool Supplies store or contact the Service Department help desk at 1-844-615-8994 as soon as possible after a discovery of the defect, but in no event later than the expiration date of the warranty period provided in this warranty. Leslie's Swimming Pool Supplies is the authorized service representative for Heating Solutions.

WARRANTIES OR REPRESENTATIONS BY OTHERS

No Dealer or other persons have any authority to make any warranties or representation concerning Heating Solutions or its products. Accordingly, Heating Solutions is not responsible for any such warranties or representations. To the extent an extended warranty period is provided by a third party and such warranty period exceeds the Limited Warranty period provided herein, the consumer will look to the third party for the additional warranty protection.

SOLE WARRANTY

Supersedes all previous publications.

Manufacturer
Heating Solutions
4438 Muhlhauser Road
Suite 600
Hamilton, OH 45011
(877) 278-2797

For warranty information please visit www.jacuzzi.com