

Happiness is
a Warm Spa
by

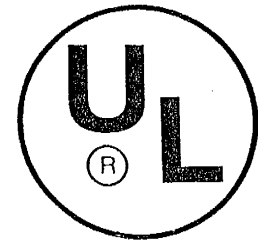
CalSpa

A DIVISION OF CALIFORNIA ACRYLIC INDUSTRIES, INC.
1462 E. Ninth St. • Pomona, California 91766
Corporate Office (714) 623-8781

1987

MODEL PS 110 and PS 220

INSTALLATION and OPERATING MANUAL



**U.L. LISTED 110 VOLT and 220 VOLT
PORTABLE SPAS**

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IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL INSTRUCTIONS

- 2 For cord connected 110 volt units. Connect only to a grounded grounding type receptacle.
- 3 For cord connected 110 volt units. A pressure wire connector is provided on the surface of the control box inside the spa (or hot tub) to permit connection of a bonding wire between this point and any metal equipment, metal inclosures of electrical equipment, metal water pipe or conduit within five feet of spa (or hot tub) as needed to comply with local requirements. The bonding wire must be at least a No. 8 AWG (8.4mm²) solid copper wire.
- 4 For permanently installed 220 volt units. A green colored terminal (or a wire connector marked "G", "GR", "Ground" or "Grounding") is provided within the control box. To reduce the risk of electrical shock, connect this terminal or connector to the grounding terminal of your electric service or supply panel with a continuous green insulated copper wire equivalent in size to the circuit conductors supplying this equipment, but no smaller than No. 12 AWG (3.3mm²). In addition, a second wire connector is provided for bonding to local ground points. To reduce the risk of electrical shock, this connector should be bonded with a No. 8 AWG (8.4mm²) copper wire to any metal ladders, water pipes, or other metal within 5 feet (1.52 m) of the tub.
- 5 For cord connected 110 volt units. This equipment is provided with a ground fault circuit interrupter in the control box. Before each use of your spa (or hot tub), with the plug connected to the power, push the test button. A red light should appear. Push the reset button. The red light should disappear. If the interrupter fails to operate in this manner, there is a ground current flowing indicating the possibility of electric shock. Disconnect the plug from the receptacle until the source of the breakdown has been identified and corrected.
- 6 For permanently installed 110 volt units. Your spa (or spa equipment) is provided with a ground fault circuit interrupter in the control box. Before use of your equipment, push the test button. A red light should appear. Push the reset button. The red light should disappear. If the interrupter does not perform in this manner, a ground current is flowing indicating the possibility of an electric shock. Disconnect the power until the fault has been identified and corrected.
- 7 For recessed in floor hot tubs and spas. Install to permit access for servicing from above or below floor.
- 8 For all units. Install to provide drainage of compartment for electrical components.
- 8A For assemblies with air blowers. Install in accordance with diagram to keep tub water out of electrical equipment. (To be accompanied with diagram and information for mounting height, routing of air hose and use of furnished check valves, if any).
- 8B For assemblies. Install with non-metallic pipe connections to tub and at least 5 feet (1.52m) from metal enclosure of assembly to inside wall of tub.

SAVE THESE INSTRUCTIONS

GLOSSARY OF TERMS

MAIN DRAIN:

During the operation of the equipment the main drain works in conjunction with the skimmer to return water to the filter along with the surface and bottom debris, keeping the spa sparkling clean.

SKIMMER:

This is the rectangular outlet at the water level. The skimmer moves surface debris to the filter. The water level in the spa should be kept at the center of the skimmer for best operation.

RETURN INLET: (HYDROJETS):

After passing through the filter and heating equipment, the water is returned to the hydro jets.

PUMP:

The pump draws water from the main drain and skimmer and pushes it through the filter and heater returning to the spa through the return inlet and/or the hydrojets(s).

FILTER:

The filter cleans the spa by passing the water through a filtering system where debris and impurities are removed. Read the manufacturer's recommendations for cleaning and servicing.

HYDROJETS:

Works with water which causes a venturi action to draw in air to provide healthful spot massage and jet action.

HEATER:

The thermostatically controlled heater raises the temperature of the water to a desired degree.

AIR BLOWER:

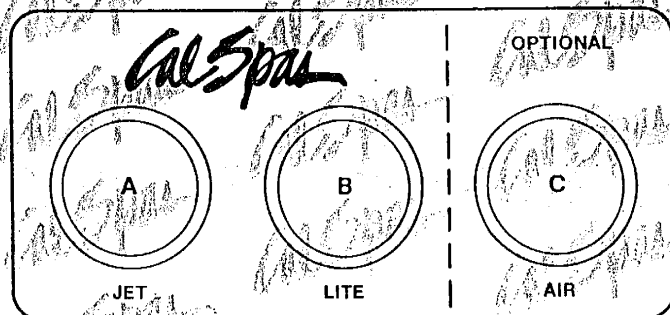
The air blower supplies air to the small holes in the lower portion of the spa, creating the hydro massage action. The blower works independently of the pump, filter, and heater.

AIR CONTROL VALVE:

Mounted generally on the lip of the spa and regulates the amount of air going to the jets.

AIR CONTROL BUTTON:

Mounted generally on the lip of spa. Buttons are used to select modes of operation (A) Jets, (high pump) (B) Air (blowers) (C) Optional Lite Unit.



SPA CONTROL PANEL

NO ACID

Tri-Chlor or Algecide Solution
They ruin Acrylic SPAS

SET-UP AND DELIVERY GUIDELINES

GETTING READY FOR DELIVERY AND SET-UP OF YOUR NEW SPA

Listed herein is a checklist of CUSTOMER REQUIREMENT AND RESPONSIBILITIES required for delivery and set-up of your new portable spa.

ELECTRICAL REQUIREMENTS:

- a. To install the 110 volt system, you should plug directly into a grounded 110 volt 20 amp dedicated receptacle.
- b. To install the 220 volt 40 amp system, you must contact a licensed electrical contractor to install the spa unit, as improper installation could cause damage to not only your property but result in serious harm to spa user.

NO EXTENSION CORDS are to be used in conjunction with the operation of the spa. Low voltage damage could result, which is not covered by warranty.

All electrical must be to NEC (National Electric Code) and any pertaining local electric codes. If you have any doubts, have your circuit checked by a qualified and licensed electrician.

SURFACE AND PAD REQUIREMENTS:

- a. Your new portable spa should be placed on a uniformly firm, flat and level concrete pad. Alternate decking methods require approval.
- b. If your spa is to be located near where sprinklers may hit, adjust or cap them so as not to hit the skirt or equipment.

REQUIREMENTS FOR DECKING, FENCES, GATES AND BALCONIES

Decking must be constructed to support 150 pounds per square foot.

Gates must be self-closing and self-locking (California requirements).

Balconies must be constructed to current state and local codes (spa load requirements are 150 pounds per square foot).

WARNING

Do Not Exceed 104°
Excessive Temperatures Voids Warranty

SAFETY INSTRUCTIONS

Each persons body and circulation system has different tolerances and responds differently to warm/hot immersion. The amount of time that safe, health soaking and therapeutic use of Spas or Hot Tubs will vary. Most people in good health find a water temperature of about 102°F to be satisfying and limit time in water at this temperature to 20—30 minutes. Use of alcoholic beverages and certain medications may affect the way your body system reacts to warm/hot water immersion. Consult your physician for recommendations.

- a. Always check water temperature with a thermometer. Water temperature above 104°F may be detrimental to the health of the user. Before using your Spa, consider your present state of health, medical history and age. Consult your physician for recommendations.
- b. Spas and Hot Tubs should not be used by persons under the influence of alcohol or medication inducing drowsiness.
- c. Never touch or come in contact with any electrical accessory when in your Spa or when your body is wet.
- d. Prior to performing any service to the Spa Pak, turn off ALL power to the system at the main power source breaker.
- e. Never turn Equipment Pak on unless Spa is filled with water to the center of skimmer.

Read all instructions carefully and completely before installation. Incorrect installation of the Spa may void the warranty. If you have any questions that are not explained in this manual, consult your Spa dealer. Consult your local building department for any permits you may need, i.e. plumbing, electrical etc. Some areas may require a swimming pool or building permit.

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SPA PLACEMENT

Consider the following suggestions when deciding on a site for your Spa:

AESTHETICS — Select a location that enhances the overall aesthetics of your home and landscape.

LOCAL CODES — Check local codes pertaining to fences, gates and electrical prior to locating your Spa.

PRIVACY AND WIND SHIELDING — Consider how your Spa will be used and how wind will affect the water temperature.

ELECTRICAL SERVICE — Remember, your Spa requires a 110 volt, 20 amp (Model 110) or a 220 volt, 40 amp (Model 220) grounded electrical circuit to operate SAFELY AND EFFICIENTLY.

NOTE: INSTALLATION OF YOUR SPA — Select a flat, level area for placement of your Spa. The surface must be concrete. Your Spa is completely self-supporting when placed on a solid foundation and does not require any type of structural support.

WARNING

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GENERAL OPERATING INSTRUCTIONS

Your Spa is designed and constructed using the finest materials and workmanship, and will provide you with years of satisfactory performance, with a minimum of effort on your part. The following operating and maintenance instructions are very important and must be carefully followed to insure that the Spa provides you with the greatest satisfaction.

All portable Spas include a filter, heater, pump and blower. Regardless of specific supporting equipment, the following procedures must be followed.

- a. The pump should be operated a minimum of two hours per day for cleaning and heating.
- b. The pump and heater are thermostatically controlled. (See Note 1) This will allow the Spa to be ready to use without any further effort on your part. The length of time required to heat the Spa to the desired temperature (usually 90° to 101°F) will vary depending on heater size, season, water temperature, wind velocity, etc. Therefore, this is something each owner must determine and adjust to his personal needs. We highly recommend using a solar blanket and/or vinyl hard cover, available from your Spa dealer, to minimize heat loss when your Spa is not in use.

Note 1: Time clock models must be programmed for heating cycle.

- c. Operating the air blower should be limited to when the Spa is being used. Continuous operation dissipates chemicals.
- d. The filter is the replaceable cartridge type. A routine cleaning of the cartridge is the best practice. Make sure pump is off, remove the cartridge, wash it off with a water hose and reassemble. Be careful not to overtighten filter console. This should be done on a routine basis, whether you think it really needs it or not. A routine cleaning is important.

- e. Keep the Spa filled to approximately the center of the skimmer. Never allow the water to drop below the bottom of the skimmer opening. This will allow air into the main water line to the pump, causing it to lose its prime (water flo). Running it without water will damage the pump seal assembly.

- f. **USE OF SOLAR BLANKET AND/OR COVER**—A solar blanket is an optional item for use with your Spa, but the vinyl cover is essential for proper temperature control and efficient operation. It is highly desirable and is available from your dealer. It has been proven that a cover saves considerable energy costs.

- g. **CLEANING YOUR SPA**—When Spa is drained, you may want to clean it. Use a liquid cleaner that contains no abrasives. Such cleaners would be, for example: 409, Fantastic or SpaGloss. **DO NOT** use a cleanser or hard brushes. A light detergent could be used.

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SKIRTED SPAS

Listed below are some items that a portable buyer should definitely be familiar

Spas require a solid flat foundation underneath.

110 volt portable spas must be on a 20 amp circuit with no other items.

Extension cords should not be used. If you cannot get by with the existing cord that is supplied, phone us for advice.

220 volt units must be hard wired into a double 40 amp breaker, direct from your electric main.

Ground fault interrupters are supplied with all 110 volt portables. If you have a problem with the GFI, there is a good chance that it is a fault of the equipment.

If your Spa has a redwood skirt keep it oiled with any suitable oil. We use linseed oil initially.

Water chemistry is especially important. Try to keep it right. It is best to add chemicals with the air blower only on for about 15 minutes after you have used the Spa, or 2 hours prior to use. Do not add chemicals when in use. "DO NOT USE ACID". This will void your warranty.

Heaters require both a proper thermostat setting and sufficient flow of water through the heater element to work. If you have a dirty filter it is quite possible that the heater element will not function.

Pump failure is most commonly caused by pump cavitation caused by lack of water supply. This can be caused during the filling (trapped air pocket) or draining (water level becomes too low). See Pump Priming Section.

The following steps will help lower operating costs and conserve energy. Use high speed pump mode to operate jets, only when Spa is being used. The same is true for the air blower since the bubble action and surface agitation increases heat loss. A suitable cover for your Spa will prevent excessive heat loss.

NOTE: Keep the spa covered at all times with an approved cover except when it is in use. Keep air venturi tightly closed when not in use.

When jets and air are off, thermostat will turn low pump on and off to maintain temperature.

Time clock models must have running and heating time programmed on the clock. (220 only)

220 volt systems will heat on high or low speed pump setting.

WARNING

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SPA PRE-OPERATION

- Step 1. DO NOT plug in 110 volt cord. For 220 VAC system, make sure branch breakers are OFF.
- Step 2. Make sure ALL electrical power to equipment is in the OFF position.
- Step 3. Make sure thermostat is rotated counter-clockwise to the OFF position
- Step 4. Make sure the two 1-1/2" gate valves (located at the inlet and outlet) are in the OPEN position, lift up on T handle.
- Step 5. Make sure drain (hose-bib) valve is tightly closed.
- Step 6. Fill Spa with water to center of skimmer — DO NOT permit water line to drop below skimmer at anytime.
- Step 7. Wait approximately 15 minutes and :
- Step 8. Inspect Spa water connections and Spa perimeter for any leaks or puddles of water.

PUMP PRIMING

- Step 9. Open hose bib to allow air out of piping system. When water begins to flow, close hose bib. (This process may need to be repeated if there is no water flow during power operation.)

The water pump is the heart of the Spa and it is essential that the pump is operated correctly to prevent serious damage to your equipment. Therefore, knowing how to prime your pump and maintain the pump prime is very important.

Pump cavitation is caused by the formation of air pockets at the inlet of the pump which in turn prevents the pump from pushing water through the power-pak. This condition can damage the pump or heater assembly. These air pockets are formed by: 1) trapped air during initial filling, 2) Spa water level dropping below the skimmer and 3) water level dropping below the suction fittings during draining (see Spa maintenance section).

When the pump is not primed, the following characteristics are present:

- a. No water action.
- b. Jet stream "sputters" with a "crackling" noise sound.

When these conditions occur, you should refer to priming instructions.

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SPA POWER OPERATION

Step 1. Plug power cord into 110 VAC power receptacle. Make sure the branch main breaker is ON for 110 VAC or 220 VAC systems.

Step 2. Make certain GFCI "reset" button on control panel is pushed in. (110 volt system only)

Step 3. Press air switch button labeled "jets", operate for 1 minute minimum. When the jets are noted to have a full steady jet stream, then the system is ready. If no jet flow after 1 minute, repeat (priming) — try again.

Step 4. Press "test" button on control panel — this shuts the system off. Reset button to operate. (110 volt system only)

Step 5. Press jet air switch button to 1st mode (ALL-OFF).

Step 6. Turn thermostat clockwise to the desired setting. The pump (LO) and heater will turn on and the Spa will begin to heat. (exception — time clock 220)

NOTE: Heater operates when pump is on low speed only for 110 volt system only. 220 volt system heater is on demand for all modes. (exception — time clock 220)

Your time clock controlled units are equipped with a SELECTOR SWITCH located above timer dial.

TIMER OPERATION — The time clock will turn low speed pump on or off at times selected by user. This is when the Spa water is filtered and heated. (NOTE: Water will heat to temperature set on thermostat provided running time is adequate.) Unit heats 5° to 7° per hour.

NO FREEZE (automatic) — this mode is thermostatically controlled and will automatically turn on or off to maintain temperature set on thermostat.

NOTES

For ease of operation, use the NO FREEZE (automatic) during the initial starting and heating of your Spa. NO FREEZE (freeze protection) is the same as automatic with a lower temperature setting.

The following steps will help lower operating costs and conserve energy:

Use high speed pump mode to operate jets, only when Spa is being used. The same is true for the air blower, since the bubble action and surface agitation increases heat loss.

A suitable cover for your Spa will prevent excessive heat loss. NOTE: Keep the Spa covered at all times with an approved cover except when it is in use.

If Spa is to be drained and left unattended, turn off breakers. Replace cover and secure.

WARNING

Do Not Exceed 104°
Excessive Temperatures Voids Warranty

NOTES

Portable Spas must have covers to heat.
110 volt Spas heat 2° to 3° per hour with cover.
220 volt Spas heat 5° to 7° per hour with cover.

Your Spa cartridge filter utilizes a reusable single element—reinforced polyester filter cartridge to provide a high degree of water clarity with minimum care. It is designed for in-line piping systems and may be used with a wide range of pumps and flow rates.

If calcium or mineral deposits are excessive, the cartridge may be restored to "like new" condition by soaking in muriatic acid. Use commercially available 20% muriatic acid added to water in a 1 to 1 ratio. Use a plastic container and take extreme care when handling cleaning agents as they can be harmful to eyes, skin and clothing. After cleaning, flush with water.

A spare "standby" cartridge filter element is an excellent investment. It provides convenience and assures that your filter will always be ready to operate at peak efficiency.

WINTERIZING FILTER — In areas where sub-freezing temperatures can be expected, the filter should be drained, and/or removed from its operating location and stored indoors. Remove and clean cartridge and store with filter housing in a secure place.

DRAINING SPA

Do not empty Spa below drain fitting or lose prime to pump because these conditions will damage pump and void warranty.

- a. Turn thermostat counter clockwise to OFF position.
 - b. Attach garden hose to outdoor hose fitting located on equipment package.
 - c. Plug off skimmer, with 1 1/2" plastic plug to maintain prime when water level drops below skimmer.
 - d. Press sequence button to pump mode. Water will flow out of garden hose.
 - e. Watch water level! When water level is just above drain fitting, turn power off or the water pump will cavitate.
- Siphon out balance of water.

WINTERIZING

In areas of the country where the temperature goes below 32°F, follow these steps:

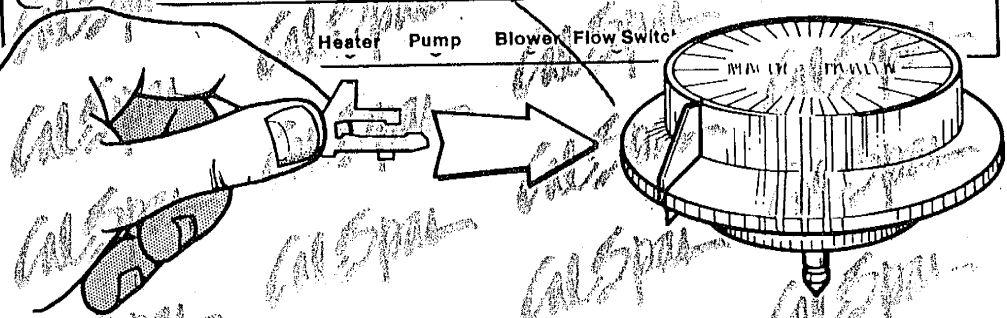
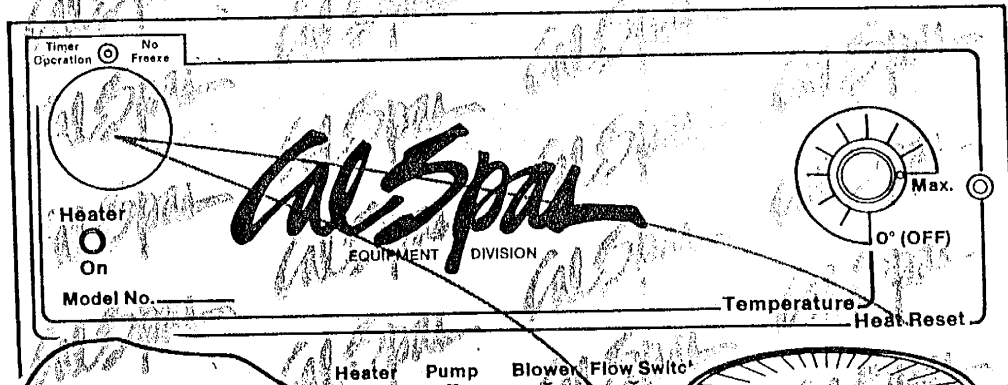
Step 1. If Spa is not going to be used, drain completely and store in garage.

Step 2. If you are going to use the Spa, set in "heat" mode and Spa will stay warm. DO NOT TURN UNIT OFF or frozen water may burst plumbing.

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TIME CLOCK



**SET
TIME**

TO SET TIMER

- Grasp timer firmly and pull from control panel.
- Remove both ON trippers (silver) and both OFF trippers (brass). Put one set of trippers aside.
- Determine desired turn on time and insert silver tripper.
- Determine desired turn off time and insert brass tripper.
- Reinsert dial with the time of day on **SET TIME**

Your Spa pump will run each day for the programmed time, filtering the Spa and heating to temperature set on thermostat.

NOTES

Your time clock controlled units are equipped with a SELECTOR SWITCH located above timer dial.

TIMER OPERATION — The time clock will turn low speed pump on or off, at times selected by user. This is when the Spa water is filtered and heated. (NOTE: Water will heat to temperature set on thermostat provided running time is adequate). Unit heats 5° to 7° per hour.

NO FREEZE (automatic) — This mode is thermostatically controlled and will automatically turn on or off to maintain temperature set on the thermostat.

For ease of operation, use the NO FREEZE (automatic) during the initial starting and heating of your Spa. NO FREEZE (freeze protection) is the same as automatic with a lower temperature setting.

LIGHT

SPECIFICATIONS

12 volt, 20 VA
Fusing — energy limiting
UL — listed power supply

Cord length — 20 feet
Bulb life — 120 hours
Bulb type — 912

LAMP REPLACEMENT

Simply remove lamp socket from back of light assembly by turning and pulling at the same time. Replace lamp with a 912 bulb and reinsert socket completely in light fixture.

INSTALLATION INSTRUCTIONS

Step 1. Determine the placement of your light. For best results, place light at the same level as jets.

Step 2. Make hole for wall fitting. For Spas, use 3 5/8" hole saw. For wood tubs, use 2 3/4" hole saw.

Step 3. Determine where you would like the switch for the light.

Step 4. Using a 1 1/8" hole saw, make a hole for the switch.

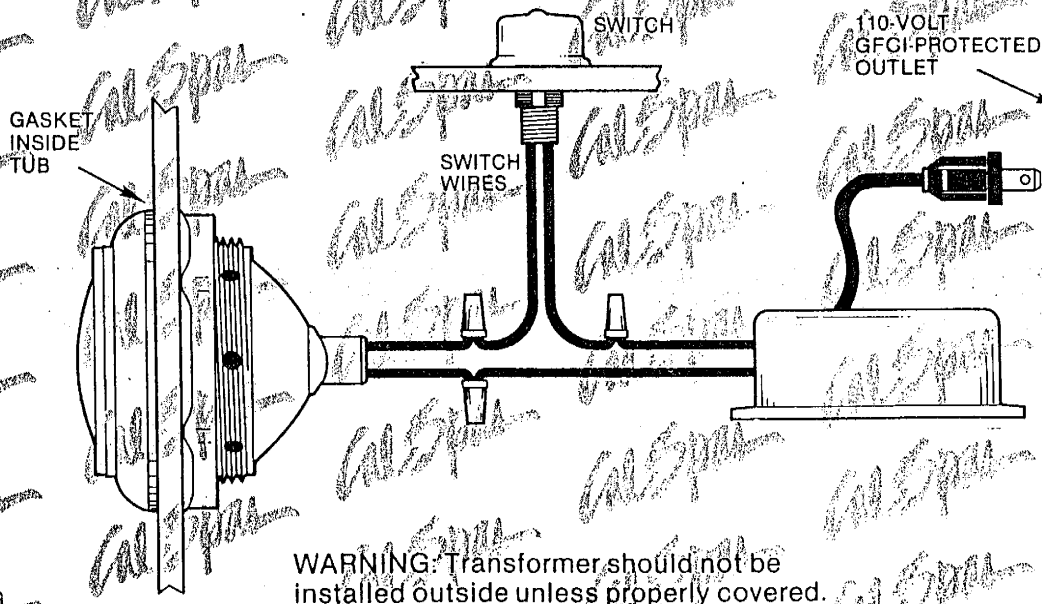
Step 5. Attach 12 volt power supply cord to light and run 12 volt power cord to switch. Connect switch as shown in diagram.

Step 6. Plug power supply into 110 volt GFCI-protected outlet.

WARNING : Transformer should not be installed outside unless properly covered.

CAUTION : Due to possible overheating, the vent holes at the back of the light housing must be left open. Do not insulate to the point of contact with this part of the light.

DIAGRAM



WARNING: Transformer should not be installed outside unless properly covered.

WARNING

Do Not Exceed 104°
Excessive Temperatures Voids Warranty

SPECIFICATIONS

MODEL — 110 VOLT

Component	Voltage	Pump	
		(HI) Amp	(LOW) Amp
Heater 1.5 KW	115V	—	12.0
Air Blower (1½ HP)	115V	6.5	—
Pump (3/4 HP — 2-speed)	115V	(HI) 8.8	(LO) 2.4
Total Amps		15.3	14.4

Spa Specifications:

Power Service	20 Amp (115V)
Power Operating	16 Amp (115V)
Power Connection	115V Flex cord-plug-in
Power Protection	GFI built-in
Temperature Range	70°F — 110°F
Temperature Operate	100°F — 103°F
Recovery Rate	2-3° per hour (approx.)
Filtration	25 sq. ft. filter
Standby Usage	5-10 KW/hr. per day (approx.)
Operate Usage	6-8 KW/hr. per day (approx.)

Wiring: 3 #10 wires

Black Wire —	Hot
White Wire —	Neutral
Green Wire —	Ground

MODEL — 220 VOLT

Component	Voltage	Pump		
		(HI) L1	L2	(LOW) Amp
Heater 5.5 KW	220V	21.0	21.0	21.0
Air Blower (1½ HP)	115V	—	6.5	—
Pump (1 HP — 2-speed)	115V	(HI) 11.0	—	(LO) 2.6
Total Amps		32.0	27.5	23.6

Spa Specifications:

Power Service	40 Amp (220V)
Power Operating	32 Amp (220V)
Power Connection	220V hard conduit
Power Protection	40 amp breaker
Temperature Range	70°F — 110°F
Temperature Operate	100°F — 103°F
Recovery Rate	5-10° per hour (approx.)
Filtration	25 sq. ft. filter
Standby Usage	5-10 KW/hr. per day (approx.)
Operate Usage	6-8 KW/hr. per day (approx.)

Wiring: 4 #8 wires

Red Wire —	Hot
Black Wire —	Hot
White Wire —	Neutral
Green Wire —	Ground

TROUBLESHOOTING GUIDE — AIR BLOWER ASSEMBLY

SYMPTOMS

PROBABLE CAUSE

RECOMMENDED ACTION

Air Blower will not operate

Improper setting of air button control switches.

Air button sequencer is on air position.

Brushes in Air Blower motor worn or defective.

Replace brushes.

Blower not plugged in.

Plug Blower in.

TROUBLESHOOTING GUIDE — PUMP ASSEMBLY

SYMPTOMS

PROBABLE CAUSE

RECOMMENDED ACTION

Pump will not prime

No water in pump.

Make sure water level in Spa is midway in skimmer mouth.

Air Lock

Bleed off air in hose bib.

Closed valves or blocked lines.

Open all valves (2) in system.

Motor does not run

No power to motor

Check that all power switches and circuit breakers. Check motor wiring at terminals.

Not plugged in.

Plug in pump.

Pump jammed.

With power off, turn shaft. It should turn freely. If not, an electrician should disassemble and repair.

Pump ran dry

Remove pump face, free impeller

Low water flow

Dirty filter.

Remove filter cartridge and clean.

Closed valves or blocked lines.

(See above under "Pump will not prime")

Low voltage or incorrect voltage.

Wiring to be corrected by licensed electrician.

Motor runs hot. These motors will feel "hot" to the touch. This is normal. Internal overload protector will turn the motor off if there is an overload or high temperature problem. Excessive heat can be caused by:

Poor ventilation.

Do not tightly cover or enclose pump motor.

Foreign matter in pump impeller.

Restricted suction line.

Make sure all valves are open.

Have qualified technician disassemble pump to remove matter from impeller.

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9.3 TROUBLESHOOTING GUIDE — HEATER ASSEMBLY

SYMPTOMS

PROBABLE CAUSE

RECOMMENDED ACTION

No heat, or heat too low

Operating Thermostat on Control Console set too low

Increase setting of Operating Thermostat

High-Limit Thermostat kicked out.

Push Reset

Improper setting of air button control switches

Hi pump off/Air off

Improper line voltage.

Have an electrician check line voltage

Inadequate water flow.

Dirty filter, blocked pump reset flo switch

Thermostat defective or Maximum Temperature Calibration too low.

Reset Thermostat Maximum Temperature Calibration
If above does not correct problem replace thermostat.

Heat too high

Operating thermostat on Control Console set too high

Decrease setting of Operating Thermostat

"Snapping" or "crackling" noises from heater

Inadequate or blocked water flow from water pump.

Turn heater OFF immediately.
Check items in PUMP ASSEMBLY and FILTER ASSEMBLY sections.

WARNING

Do Not Exceed 104°
Excessive Temperatures Voids Warranty

CALIFORNIA ACRYLIC INDUSTRIES, INC.

LIMITED WARRANTY

THIS IS TO CERTIFY that the portable in-ground SPA, MODEL _____, SERIAL NUMBER _____, is hereby registered to:

NAME: _____
ADDRESS: _____
CITY: _____
STATE: _____ ZIP: _____
TELEPHONE: () _____

and is warranted to be free of all defects in material and workmanship for the following periods from this date of registration, the _____ day of _____, 19 _____, TO THE ORIGINAL PURCHASER AND THE ORIGINAL PURCHASER ONLY:

FIVE (5) YEARS: The spa shell, excluding its finish and factory installed accessories and pre-plumbing. In the event of a defect in material and/or workmanship within the said period, the spa shell shall be repaired or replaced, at the option of the manufacturer, and shall assume as its warranty period only the remaining time under this original five (5) year warranty.

ONE (1) YEAR: The acrylic finish applied to the interior surface of the spa shell. In the event of a defect in material and/or workmanship within said period, the spa finish shall be repaired or replaced, at the option of the manufacturer, and shall assume as its warranty period only the remaining time under this original one (1) year warranty.

THREE (3) MONTH: Pre-plumbing and factory installed accessories, including air jets, skimmer, suction fittings, tile, air-switch, and skirting. In the event of a defect in material and/or workmanship within said period, the defective item shall be repaired or replaced, at the option of the manufacturer, and shall assume as its warranty period only the remaining time under this original three (3) month warranty.

EQUIPMENT: Any and all equipment sold in conjunction with the above identified spa is excluded from this Limited Warranty. All such equipment, if expressly warranted, is in accordance with its manufacturer's warranty, a copy of which is provided with each piece of equipment sold herewith. Buyer is instructed to comply with and follow the instructions contained in said warranties for service in the event of a claimed defect.

THIS WARRANTY DOES NOT APPLY to any defects caused by negligence, misuse, accidents or intentional vandalism. Examples of the more common act of negligence which will invalidate this warranty is (1) the use of acid or acid products in said spa. **NO ACID OR ACID PRODUCT MAY BE UTILIZED IN THIS SPA.** Please refer to your owner's manual for instructions on properly maintaining the required chemical balance; (2) failure to adequately protect your spa from the extremes in temperature; spa covers and other accessories are available to assist you in this regard; and (3) improper installation by Buyer's who either install or personally arrange installation of their spa. **AS SPECIFIED IN YOUR OWNER'S MANUAL, YOUR SPA MUST BE INSTALLED ON A LEVEL SURFACE, IF PORTABLE, OR ADEQUATELY BACKFILLED WITH SAND IF INSTALLED IN-GROUND.** Failure to follow these simple precautions will result in excessive stress in areas of your spa with resulting cracking.

Within the above specified periods, **CALIFORNIA ACRYLIC INDUSTRIES, INC.** is obliged to repair or replace any specified part proving defective in material and/or workmanship. Buyer is instructed to contact directly the Dealer from whom he or she had purchased the spa who will arrange warranty service. **IN THE EVENT THE BUYER SHOULD BE UNABLE, FOR ANY REASON, TO EITHER OBTAIN SUCH SERVICE OR OBTAIN SATISFACTORY SERVICE, HE OR SHE IS INSTRUCTED TO CONTACT MANUFACTURER'S SERVICE CENTER, CUSTOMER SERVICE DEPARTMENT, LOCATED AT 1462 9TH STREET, POMONA, CALIFORNIA 91766, TELEPHONE: (714) 623-8781, WHICH WILL IMMEDIATELY TAKE STEPS TO PROVIDE ALL SERVICE TO WHICH BUYER MAY BE ENTITLED UNDER THIS WARRANTY.** All expenses related to replacing or repairing a defective spa, finish, or part under this warranty shall be assumed by the manufacturer, **EXCEPT THAT BUYER SHALL ASSUME AND BE RESPONSIBLE FOR ANY AND ALL EXPENSES INCURRED IN TRANSPORTATION COSTS, OR IN OBTAINING ACCESS TO SAID SPA, FINISH OR PART FOR ITS REPAIR OR REMOVAL AND/OR REPLACEMENT.**

BUYER MUST NOTIFY manufacturer of any defect, malfunction, or nonconformity promptly upon discovery. Notification by Buyer to his or her selling Dealer will satisfy this requirement. Within **TWENTY (20)** days after giving notice to said Dealer, Dealer will commence and diligently pursue warranty service to completion or Buyer is advised to contact manufacturer as specified hereinabove.

Manufacturer neither assumes nor authorizes any Dealer or other representative or person to assume for it any other liability in connection with the sale or shipment of the above specified products. Manufacturer reserves the right to make changes or improvements in our products without incurring any obligation to similarly alter products previously purchased.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. The Buyer has the right to bring any action at law or equity to resolve disputes concerning or to enforce the provisions of this warranty.

CALIFORNIA ACRYLIC INDUSTRIES, INC.
1462 East 9th Street
Pomona, California 91766
(714) 623-8781

EFFECTIVE DATE: 10/5/86

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Warm Spa



A DIVISION OF CALIFORNIA ACRYLIC INDUSTRIES, INC.
1462 E. Ninth St. • Pomona, California 91766
Corporate Office (714) 623-8781

Owners Information

Dealer _____

Company _____

Address _____

Phone _____

Installer _____

Company _____

Lic. # _____

Address _____

Phone _____

Spa # _____

Equipment Pak # _____

Date of Delivery — _____

Signature of Sales Rep.