

SPA OWNER'S MANUAL

SUPPORT SYSTEMS FOR MARQUIS THERAPY SYSTEM I PORTABLE SPAS MODEL NO. 3810

THIS IS AN IMPORTANT SAFETY DOCUMENT.

- · Keep it in a safe place.
- · Pass it on to any new owner.
- If lost, contact your local Pacific Marquis dealer or write to Pacific Marquis and new copy will be provided at no-charge.



This symbol on the product's nameplate means it is Listed by UNDERWRITERS LABORATORIES, INC.



MARQUIS CORP. 596 Hoffman Rd. Independence, Oregon 97351 (503) 838-0888

SAVE THESE INSTRUCTIONS

Please take a few minutes to read this manual. A thorough knowledge of the basic safety precautions and proper maintenance procedures will provide years of safe and pleasant enjoyment of your Pacific Marquis Spa.

(It should also be noted that in some cases, failure to follow these instructions may result in damage that will not be covered by your warranty or may void the warranty entirely.)

SERIAL NUMBER LOCATION

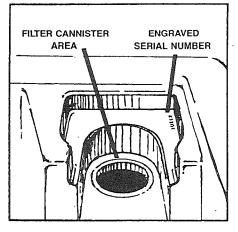
On Pacific Marquis spas, the serial number is engraved directly above the filter canister area (see diagram). On those models which are listed by Underwriters Laboratories (U.L.), you will also find the serial number engraved on the foil tag attached in the equipment bay.

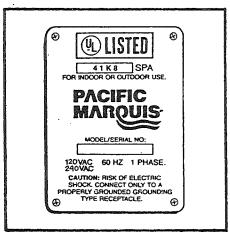
Please fill out for future reference.

PACIFIC MARQUIS SPA MODEL

SERIAL NUMBER

CAPACITY (GALLONS)





MEMBER



COPYRIGHT ©1990 MARQUIS CORP. INDEPENDENCE, OREGON 97351 Printed in U.S.A. 10/90 This spa is designed and intended for residential use only and should not be used in a commercial, public or semi-public installation.

TABLE OF CONTENTS

SERIAL NUMBER LOCATION (PAGE 2)

IMPORTANT SAFETY
INSTRUCTIONS (PAGE 3-6)
ELECTRIC SHOCK RISK (#2-6)
RISK OF HYPERTHERMIA (#6c)
GROUNDING & WIRING (#8-13)
CHEMICAL SAFETY (#14, 34)

INSTALLATION & USE (PAGE 6-13)
LOCATION (#16)
SHUT-OFF VALVES (#17)
HEATER HIGH LIMIT (#18, 19)
HYDROTHERAPY JETS (#20)
SPA SIDE CONTROLS (#21)
HEATER THERMOSTAT (#23)
SPA LIGHT (#24)
AIR CONTROL VALVES (#25)
TIME CLOCK OPERATION (#26-27)
WATER CHEMISTRY (#29-34)
ELECTRICAL REQUIREMENTS (#35)
230 VOLT INSTALLATION (#36)

STARTING YOUR SPA (#37-43)
OPERATING YOUR SPA (#44, 45)
ENERGY COVER (#46)
CEDAR SKIRT (#48)
DRAINING THE SPA (#49, 50)
CLEANING (#51, 52)
REMOVING FILTER (#53)
REFILLING (#54)
LIGHT BULB REPLACEMENT (#55)
WINTERIZING (#56)

SPA MAINTENANCE SCHEDULE (PAGE 15-16)

SCHEDULE (#57-61)

TROUBLESHOOTING
SYMPTOMS-ACTION (PAGE 16-17)

SUPPORT SYSTEM DIAGRAM (PAGE 18)

IMPORTANT SAFETY INSTRUCTIONS

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

1. READ AND FOLLOW ALL INSTRUCTIONS.

- 2. DANGER RISK OF ELECTRICAL SHOCK! Install at least five feet from all metal surfaces.
- **3.** DANGER Risk of electrical shock. Do not permit any electrical appliance, such as a light, telephone, radio, or T.V. within 5' (1.52 M) of a spa or hot tub.
- **4.** DANGER To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

- WARNING RISK OF CHILD DROWNING. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use a spa or tub unless they are supervised at all times.
- **5.** DANGER To reduce the risk of injury, do not remove suction cover or grate.
- **6. TO REDUCE THE RISK OF IN- JURY:** The following spa use rules are most important. Using your spa properly and safely will give you countless hours of enjoyment and pleasure. But, just as with many products today, misuse can be extremely harmful. Protect yourself, your family and your guests by following the safety rules listed below:
- A. Do not drink alcoholic beverages before or during spa use. One of the effects of alcohol is slowed reflexes and it can make

people drowsy. Jetted hot water also helps induce muscle relaxation. The two together could induce sleep and this, in turn, could possibly lead to drowning. Because of these facts, it is vitally important that you do NOT allow the mixing of alcoholic beverages with spa usage.

- **B.** Pregnant women and people under medical care (for such problems as heart disease, diabetes, blood pressure or circulatory problems, or obesity) must consult their physician prior to using the spa. Some medications can induce drowsiness. Never use the spa when taking anticoagulants, antihistimines, vasoconstrictors, vasodilators, stimulants, hypnotics, narcotics or tranquilizers. In all cases, if you are not thoroughly familiar with the medication you are taking, check with your doctor prior to using the spa.
- C. Spa water temperatures should be maintained in the 98° to 104° range. An accurate underwater thermometer is a "must". 100° water is generally safe and enjoyable for most adults. However, remaining in 100° water for an extended period will raise your body temperature to this level and you may experience some discomfort. As a general rule, when you raise the temperature of the spa water, you should reduce the amount of time you soak. Twenty minutes is about the limit for 102° water; limit your soaking to 10 minutes above 102°. Never soak in water hotter than 104° because temperatures above this level may raise your body temperature to a level that could cause drowsiness, fainting, hyperthermia or heat stroke. (Symptoms of hyperthermia are: muscle incoordination and cramps, nausea, rapid heartbeat, pale skin and delirium.) Before entering a spa or hot tub, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature-regulating devices may vary as much as ±3°C (5°F). It is always important to check your in-spa thermometer before using your spa and to limit your time in the spa as suggested above. Use 98° to 99° - normal body temperature - for extended periods of soaking.

A WORD ABOUT PREGNANT WOMEN

Soaking for extended periods in water 102°F or higher may affect body tempera-

ture to the point that it could affect the fetus. This is especially important during the first 90 days of pregnancy. Spa use at 102°F should be limited to no more than 15 minutes. It is strongly suggested that women who are pregnant (or those who are considering becoming pregnant in the near future) check with their doctor on his recommendation for safe spa use.

A WORD ABOUT CHILDREN

As previously explained, soaking in hot water will affect the body's temperature. In small children, the body temperature can increase more quickly than with a full-grown adult. Thus, children are unable to absorb the same amount of heat. Therefore, children's time in the spa should be less than an adult's and children using a spa must be constantly supervised. Children should never be allowed to swim underwater.

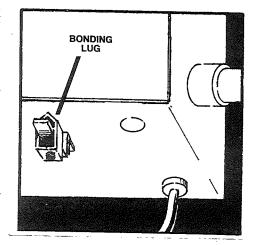
- **D.** People with infections, skin sores or open wounds should not use the spa. Warm or hot water may serve as a "breeding ground" for some types of bacteria. It is vitally important to keep your spa properly disinfected with chlorine or other equally effective disinfectants.
- **E.** It is recommended that people shower before and after using the spa. Showering before removes deodorants, lotions, perspiration and oils which may clog the filter. Showering after soaking will help remove any bacteria that may be in a spa that is not fully disinfected.
- **F.** NEVER allow children to use the spa without adult supervision.
- **G.** Adults should not use the spa without someone nearby who can be called should anything unexpected occur. As an added precaution, you may want to post emergency phone numbers near your phone so that they are handy should a need arise.
- **H.** Always use unbreakable containers around the spa; never use glass.
- **I.** Always use caution when entering and exiting the spa. Wet surfaces can be slippery and may cause a fall. Hand rails and non-skid surfaces are recommended.
- J. Suction through drains and skimmers can be powerful. Any drain or skimmer with

- a damaged cover can be dangerous, especially to small children or adults with long hair. Should any part of the body become drawn to a drain or skimmer, turn off the spa immediately. Long hair should be restrained in a bathing cap; never allow long hair to float in the spa. Always replace broken drain outlet covers immediately.
- K. Keep electrical appliances, including telephones, away from the spa to avoid a possible shock hazard. Do not try to adjust or touch the spa equipment such as the pump, heater or any other electrical appliance while you are in the spa.
- L. Never walk, climb, play or jump on the Energy Cover of your spa. Never swim or play under this cover when it is installed on the spa. Also, do NOT rely on your Energy Cover as a safety cover for children. It is a precautionary measure only and children must be supervised when they are in or around the spa.
- M. A fence around your spa with a selfclosing, self-latching gate can be the best protection against unauthorized entry and use. If your spa is indoors, lock the door to the room to keep out unauthorized users.
- N. Do not use a spa in conjunction with strenuous exercise without consulting your physician and obtaining his approval.
- 7. Turn OFF all electric power at the main circuit breaker or disconnect panel prior to performing any service to the spa equipment.
- 8. It is the responsibility of the spa owner to ensure that all electrical connections are made in accordance with the National Electric Code and any state or local electrical codes in effect at the time of installation. For all permanently connected units the electrical supply for this product must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with Section 422-20 of the National Electrical Code, ANSI/NFPA 70-1987. The disconnecting means must be readily accessible to the tub occupant but installed at least 5 feet (1.5 m) from tub water.

DO NOT BURY THE POWER CORD.

9. A pressure wire connector is provided

on the side surface of the control box inside the spa to permit connection of a bonding wire between this point and any metal equipment, metal water pipe or conduit within five feet of the spa as needed to comply with local requirements. The bonding wire must be at least a #8 AWG (8.4 mm²) solid copper wire. This is to reduce the risk of electric shock.



- **10.** Connections should be made with copper conductors only. All conductors, circuit breakers and/or fuses must be sized in accordance to the Total Amperage Load as specified on the electrical control box data label.
- 11. All 240V support systems require a three wire plus ground electrical service (line 1, line 2, neutral, ground). All 240V connections can be made by removing the front of the electrical control box.
- **12.** The spa **must** be installed to provide proper drainage and to keep water out of the electrical equipment components.

The spa must be installed in such a manner as to provide access for servicing all electrical and plumbing components from above or below any decks or floors.

13. NEVER operate the spa support system when the spa is empty. This could result in severe damage to the heater, pump and spa support components and is a potential fire risk.

CHEMICAL SAFETY

14. Add only one chemical at a time to the spa water. Never mix chemicals or chemical solutions together. Always follow the manufacturer's instructions for dilutions and handling precautions. When diluting, add chemicals to water – not water to chemicals.

Avoid skin contact when working with acid. ALWAYS STORE CHEMICALS OUT OF THE REACH OF CHILDREN: (#34).

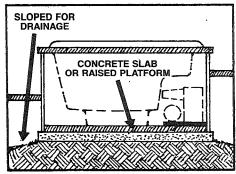
15. SAVE THESE INSTRUCTIONS

INSTALLATION AND USE

LOCATION

16. For your portable spa to function properly and safely, it must be located on a hard, flat, level surface. Inground spas require special installation techniques and should be planned in conjunction with your Pacific Marquis dealer. Improper installation can result in structural damage to the spa and a voiding of your spa warranty. Items to discuss with your dealer include local construction codes, electrical service requirements, accessibility and serviceability of equipment and components, present underground obstructions such as gas, water and telephone lines, safety measures such as fences and locks and visibility of the spa installation from the home, street and neighbors.

You must allow for sufficient water drainage around the spa to help preserve the wood skirt and support structure and to provide adequate drainage of the equipment bay for the components.



Your spa MUST be installed to permit access for servicing the equipment above and/ or below any decks or floors. Access is es-

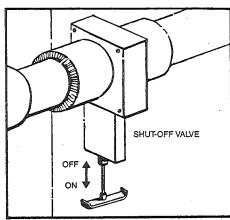
sential and must allow adequate room for service personnel.

Be sure the spa is in the final position BE-FORE filling with water. Check for power cords, tools or hoses which may be caught underneath the spa.

CAUTION: Never try to move a spa that has not been fully drained. To do so can result in damage to the spa and physical injury to the mover.

SHUT-OFF VALVES

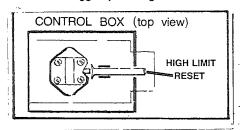
17. Your spa is equipped with two SHUT-OFF VALVES that can completely shut off the water flow to the support system for dealer servicing. At times, a new spa or one that has recently been serviced may have the SHUT-OFF VALVES partially closed which can restrict the water flow and hinder jet performance. Be sure the valves are ALWAYS fully open with the handles fully extended.



HEATER HIGH-LIMIT SWITCH

18. The high-limit switch will stop operation if the temperature within the heater assembly reaches a factory-set non-adjustable limit.

Several conditions could cause the switch to activate: low water level, shut-off valves closed while heater is on, dirty filter, restricted or clogged plumbing lines.



19. To reset the high-limit switch, push the red button located on the upper left hand corner of the control box panel.

The switch cannot be reset until water temperature within the heater assembly drops to a lower, preset temperature. If the switch trips repeatedly, the support system should not be operated until the problem has been corrected. Please refer to your Pacific Marquis Dealer.

HYDROTHERAPY JETS

20. Your spa is fitted with directional hydrotherapy jets. The jet action can be directed 360° by aiming the swivel ball nozzle.

SPA SIDE CONTROLS

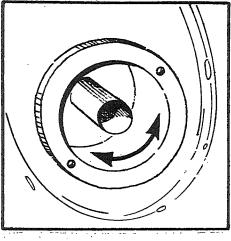
21. The SPA SIDE CONTROL places all of your spa's functions within arm's reach.

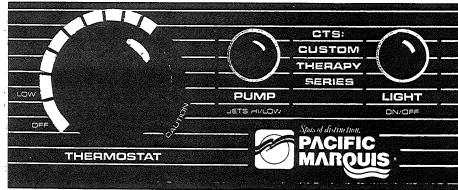
PUMP

22. The button marked "PUMP" controls the two speed pump. Pushing the button either activates the HIGH speed mode for maximum jet action or returns the pump to LOW speed for circulation.

CAUTION: Do not leave pump on high speed when spa is not in use. Overheating of the spa water can result.

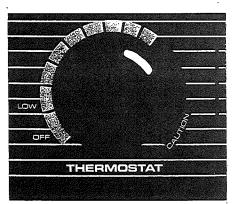






HEATER THERMOSTAT

23. The thermostat for the heater is located on the left hand side of the spa side panel. To adjust the spa's heat, turn the thermostat knob clockwise to increase the temperature and counter-clockwise to decrease the temperature.



The length of time it takes the water to reach a desired temperature depends on several factors. Raw water temperature, ambient air temperature, spa size, relative humidity, type and insulative qualities of a cover and constancy of electric power are all factors. Prolonged use of the hydrojets will have a cooling effect upon the water. DO NOT EXPECT TO FEEL HOT WATER FROM THE JETS AT INITIAL START-UP.

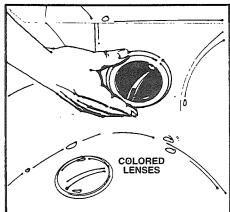
CAUTION: The spa should never be operated at temperatures above 104°F. An accurate underwater thermometer is vital in monitoring water temperatures. If the thermostat allows the heater to heat the spa to temperatures greater than 104°F, contact your Pacific Marquis dealer. Refer to Safety Precaution "C" in the front of this manual for further information about recommended water temperatures.

UNDERWATER SPALIGHT

24. Your spa is equipped with an underwater spa light located in the spa footwell. The low-voltage system produces a bright white light for evening use in the spa and makes entering/exiting the spa safer.

The light control switch is located on the Spa Side Control panel. You may install

one of two interchangeable colored lenses over the white lense housing. The lenses snap on and off the housing and can be installed even when the spa is full.

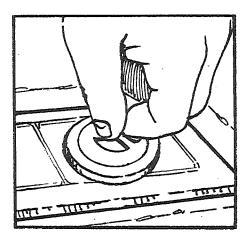


AIR CONTROL VALVES

25. Your spa is equipped with dual air control valves which allow regulation of the water action from the jets.

The water action can be increased by turning the air control valves counter-clockwise, or reduced by turning clockwise.

NOTE: Because heat loss occurs as air is injected into the water, close the air control valves completely when the spa is not in use.



TIME CLOCK OPERATION (General)

26. Your spa is equipped with a single 7-day time clock built into the electrical control box. The time clock is designed to give you maximum operating convenience and economy. By using this time clock the water can be filtered daily or, several times a day, to maintain sparkling clear water with ideal chemical distribution.

The timeclock is provided as a convenience. It is still best to operate your spa 24 hours a day in the low-speed circulation mode (when not in use). This will provide the maximum amount of filtration as well as prolonging the life of the pump and other electrical components.

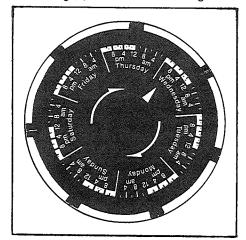
ADJUSTING THE TIME CLOCK

NOTE: Any time the circuit breakers are shut off the clock will need to be reset to the actual time of day.

TIMECLOCK (7-Day Operation)

27. CLOCK SET POINT: Rotate 'minute' hand on interior of clock face clockwise and set correct time of day opposite Set Point arrow.

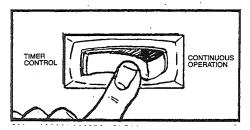
TIME CLOCK LUGS: (Each lug represents 2 hrs.) Push outward from center of clock to set ON times. Any combination of cycles is possible. The example shows ON at 10:00 a.m. and OFF at 2:00 p.m. To cancel settings, push inward on the lugs.



If the thermostat is calling for heat and the time clock reaches an ON time, the PUMP will start and the HEATER will turn ON. When the water reaches the desired temperature, the thermostat will turn the HEATER OFF and the pump will continue. This cycle will continue during each ON period as determined by the setting of the time clock lugs.

TIME CLOCK BYPASS SWITCH

28. In the TIMER CONTROL position, the time clock has control and will start and stop the filtration cycle as determined by the settings of the TIMECLOCK lugs (#27).



In the CONTINUOUS OPERATION position, the filtration cycle will be continuous. This is desired following periods of heavy usage or when adding chemicals.

The time clock setting is not disturbed and timed cycles will begin again when this switch is returned to the TIMER CONTROL position.

NOTE: If your spa is equipped with an ozone sanitation system, refer to the supplemental booklet dealing with the ozone system for complete instructions and chemical guidelines.

WATER CHEMISTRY GUIDELINES

29. When filling the spa with water, use the chemicals recommended by your P.M. Dealer to bring the water to a correct chemical balance (#31-33). NEGLECT IN MAINTAINING THE CORRECT WATER CHEMISTRY CAN VOID YOUR SPA WARRANTY!

There are several methods available to sanitize the water in your spa. Pacific Marquis recommends using chlorine, bromine,

or ozone. No other oxidizing agents are suggested. Use of other oxidizing agents may damage equipment and void the warranty.

30. CAUTION: It is essential that you shock chlorinate your spa after filling it with water BEFORE you begin to use it. Directions for shock or super chlorination are given on the chlorine concentrate container. This shock treatment will give an initial sterilization to your water, kill any algae spores that may be present and oxidize undesirable minerals and organic matter in the raw water.

This treatment must be repeated anytime the spa is refilled or the water has lost its chemical control due to neglect or lack of use.

It is recommended that sodium dichlorocyanurate (DyCloro) or lithium hypochlorite be used for spa use. Calcium hypochlorite is a type of chlorine which is used in swimming pools and it is not recommended for spa usage.

CHEMICAL LEVELS

- **31.** pH levels should be kept between 7.2 and 7.6. Failure to maintain these levels can result in burning of the eyes, skin rashes and other discomforts as well as clogged pipes, staining and equipment damage.
- **32.** Alkalinity should be maintained between 100-150 parts per million (ppm).
- **33.** Chlorine levels should not exceed 3 ppm except during periods of super chlorination (#30). Super chlorination is used only to treat raw water after completely draining the spa, and after periods of heavy use.

Since water chemistry and hardness varies from region to region, you should contact your Pacific Marquis dealer for advice on how to best treat your water. He has a complete line of chemicals to help you get optimum use and enjoyment from your spa.

CHEMICAL SAFETY

34. It is important that you read and follow the safety tips for chemical usage and storage listed here. This valuable information is contained on pages 11 and 12 of the "Sensible Way to Enjoy Your Spa or Hot Tub" issued by the *National Spa and Pool Institute* (NSPI) who have granted us permission to use this information here.

The chemicals needed for your spa or hot tub help make it clean, disinfected and more attractive to use. But remember that these chemicals are potentially dangerous and may present some hazards if not used properly. Carefully follow the manufacturer's instructions for the use and storage of chemicals.

In general, here are some tips for chemical use and storage:

- Before using chemicals, read the labels and directions carefully. Follow label use instructions.
- Keep all chemicals out of the reach of children.

STORAGE

- Chemicals for test kits should be replaced each year.
- Keep the original lids on all chemical containers and make sure the lids are closed tightly when not in use.
- Do not stack different chemicals on top of one another.
- Store your spa or hot tub chemicals in a clean, cool, dry, well-ventilated area, preferably off the floor, to prevent contamination from other materials. Keep them away from chemicals and equipment used for garden and lawn maintenance.
- Keep liquid chemicals away from dry chemicals. Keep apart chemicals which are different forms of oxidizing compounds. Physically separate all different forms of chemicals.
- Do not store your spa or hot tub chemicals where other flammable items may mix with them. For example, a mixture of these chemicals and fertilizer can cause a fire or explosion.

USAGE

- Never mix two chemicals together. Use a clean scoop for each chemical, and avoid combining materials from "old" and "new" containers.
- Test the water in your spa or hot tub with a reliable test kit on a schedule recommended by your spa or hot tub professional. Add the necessary chemicals according to the test results and the manufacturer's instructions. In the hot water environments of spas and hot tubs, disinfectants may rapidly break up and spread out, requiring more frequent water testing. Follow your manufacturer's instructions in this regard. The more people who use the facility, the more frequently you should test the water.
- Do not inhale dust or fumes from any chemicals. If necessary, use proper protective devices for breathing, handling and eye protection. Promptly wash off any residues which get on your skin.
- Never reuse old containers unless specified by the manufacturer.
- If you have any questions regarding safe handling, storage or use of spa or hot tub chemicals, contact the manufacturers
- Always add the chemicals directly to the spa or hot tub water, either in a suitable feeder, or distributed across the surface of the water or diluted and poured into the water. Follow label use instructions.
- When preparing water solutions for feeder application, pour the chemical slowly into the appropriate amount of water, stirring constantly to provide mixing and dilutions.
- Always add chemicals to water. Never add water to chemicals.
- Never add chemicals to the spa or hot tub water while people are using the facility.
- Carefully clean up any spilled chemicals with large amounts of water, to dilute and wash away the chemicals. Disinfectants and pH adjustment chemicals can usu-

- ally be sent to the sewer with large quantities of water, since they are intended for use at low levels.
- Wash out empty, disinfectant containers before disposing to eliminate danger of fire, explosion or poisoning.

ELECTRICAL REQUIREMENTS

35. Before start-up or performing any service to the spa equipment, turn OFF all electric power at the main circuit breaker or disconnect panel.

It is the responsibility of the spa owner to ensure that all electrical connections are made by a qualified electrician in accordance with the National Electric Code and any state and local electric codes in effect at the time of installation.

All connections must be made in accordance with the wiring diagram found on the inside of the electrical box cover or the wiring diagrams within this manual.

Connections should be made with copper conductors **only.** All conductors, circuit breakers and/or fuses must be sized in accordance to the Total Amperage Load as specified on the electrical control box data label.

This equipment is designed to operate on 60Hz Alternating Current only at a voltage of 230V as required.

A pressure wire connector is located on the exterior of the electrical control box. If the installation includes a common bonding grid (reinforced concrete slab, ground plate beneath the spa or any metal water pipe connection), this pressure wire connector should be bonded with at least #8 AWG copper wire to any metal ladder, water pipe or other metal within five feet of the spa.

230 VOLT INSTALLATION

36. Units operated at 230 V must have all connections made by a qualified electrician in accordance with the National Electric Code and any state and local electric codes in effect at the time of installation. All 230V units require a three wire plus ground (line 1, line 2, neutral, ground).

Refer to the diagram on the electrical box cover.

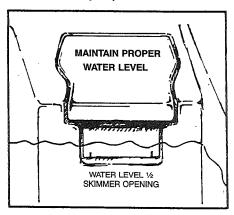
NOTE: All 230V field supplied wires must be sized and installed in accordance with any and all national, state and local electrical requirements in effect at the time of installation.

STARTING YOUR SPA

- **37.** Make sure power supply is off. On this 230V system the circuit breaker in the residence electrical panel must be off.
- **38.** Tighten all disconnects, open both shut-off valves (#17) and clean all debris from the spa.

Make sure the suction fitting cover is in place in the footwell of your spa. This unit is not to be installed without a suction fitting cover approved to prevent hair and body entrapment. An approved fitting is supplied by the factory with your Pacific Marquis Spa.

- **39.** Select the mode of operation that you desire and move the time clock bypass switch to the desired position (#28). Refer to the section on TIME CLOCK for further details (#26-27).
- **40.** Fill the spa to the middle of the skimmer opening. **Shock chlorinate** the water before entering and using the spa. It is essential that this shock treatment be done after each refill **(#30)**.



NOTE: If the spa is equipped with an optional ozone sanitation system, refer to the supplemental manual for instructions on the sanitation steps needed prior to using the spa.

- **41.** MAKE SURE THERMOSTAT IS IN "LOW" POSITION! (#23).
- **42.** Turn electrical power on to the spa. On this 230V system, flip on the circuit breaker in the residence electrical panel.
- **43.** Your Pacific Marquis spa is equipped with a door safety system. If the equipment bay door is opened, or ajar, the support system will not operate. THE DOOR MUST BE CLOSED COMPLETELY FOR ANY OF THE SUPPORT SYSTEM COMPONENTS TO BE ACTIVATED.

OPERATING THE SPA

44. Allow the spa to circulate on high speed for 4-5 minutes to discharge air from the plumbing system. After a full flow of water has been obtained from all the jets, adjust the thermostat to the desired setting. Do not expect hot water immediately from the jets. The heater will take several hours to heat the spa to the desired temperature.

NOTE: Your Pacific Marquis spa has been filled and test run at the factory. The first time your spa is filled with water, some discoloration from residual test water may appear. This will disappear when the spa is completely filled and the filtration system is activated.

45. Retest the water for the proper chemical balance and adjust as necessary (#31-33). PROPER BALANCE IS IMPORTANT.

For longer pump life, more efficient heating and lower operating cost, we recommend the time clock bypass switch (#28) be left on "CONTINUOUS OPERATION". There is less wear on the equipment when it is run at longer periods rather than short intervals.

An unused spa should circulate for at least four (4) hours per day to maintain proper filtration and water temperature. More frequent use of your spa and cooler air temperatures will require longer circulation times.

ENERGY COVER

46. When the spa is not in use, the Pacific Marquis Energy Cover should be kept on the spa to retain the water's heat and to keep out dirt, leaves, etc. Your preset heater thermostat will maintain a constant water

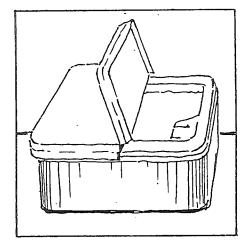
temperature between spa uses for a very low cost per day.

While the Energy Cover is not intended to serve as a safety device, it may serve as a deterrent to unauthorized spa use. Cover locks are included with the Energy Cover and should be installed.

FREEZE PROTECTION

- **47.** Your Pacific Marquis spa has several features which allow you to choose the degree of freeze protection that is most appropriate for your particular spa usage and environment. If the spa is not going to be fully drained and winterized (#56), then maximum freeze protection is obtained by the following:
- air switch control on low speed pump (#22).
- flip time clock bypass switch to continous operation (#28).
- thermostat (#23) on the LOW setting or higher

This results in a continuous circulation of the spa water with the heater automatically maintaining a water temperature of approximately 50°F. Regardless of the extent of freeze protection required, always leave the thermostat set on the LOW position or higher and where possible, leave the spa in continuous operation and thermostat control.



REGULAR MAINTENANCE

CEDAR SKIRTING

48. Your spa skirting has been treated with a sealant at the factory. It is suggested that the skirting be treated twice a year with an additional coat of sealant for maximum weather protection. You should contact your Pacific Marquis Dealer for advice on which sealants work best in your environment.

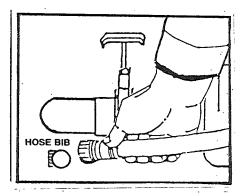
DRAINING THE SPA

49. It is recommended to completely drain the spa AT LEAST four times a year. More frequent draining may be required depending on use. Unless this is done regularly, the water becomes chemically "saturated" and will no longer respond to regular chemical upkeep. The spa should also be drained before long periods of disuse or for equipment repair. An empty spa should be covered. Direct sunlight on the acrylic surface can cause severe damage or blemish-

ing of the spa shell and can result in the voiding of any surface warranties.

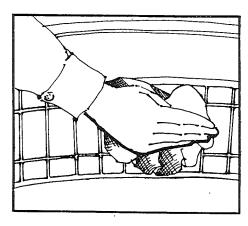
Because of the small water volumes involved with spas, sometimes it is much simpler and less expensive to drain the water than to adjust the water chemistry with chemical additives.

- **50.** To drain the spa for cleaning or service complete the following steps.
- A. Turn the thermostat to the low position (#23).
- B. Turn OFF the circuit breakers (#7-11).
- C. Attach a garden hose to the hose bib in the equipment bay.
- D. Open the hose bib fully, and the water will drain out by gravity.
- E. When the spa is empty, close the hose bib and remove the hose.



CLEANING

51. Should the tile or water line become soiled, it can be cleaned with a soft sponge or cloth. Do not use any abrasive cleaners as they can scratch or dull the spa surface or tile.

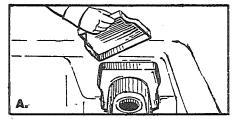


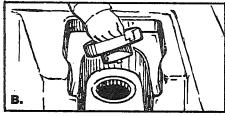
52. Your Pacific Marquis Energy Cover can be cleaned with a non-abrasive household cleaner on both top and bottom sides. A good quality NON-SILICONE based vinyl restorer will help protect the surface from the sun's rays.

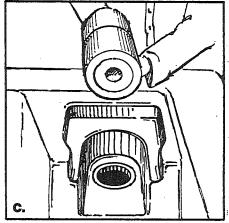
REMOVING THE FILTER

- **53.** Refer to the Spa Maintenance Schedule for cleaning frequency and instructions. The filter cartridge can be removed by completing the following steps:
- A. Remove the skimmer lid.
- Twist the catch basket counterclockwise and lift out.

- C. Lift out the filter cartridge. Note the position of the filter: the large hole faces DOWN.
- D. To reinstall the filter, simply reverse the procedure outlined above.







REFILLING

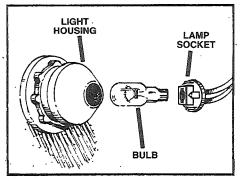
54. Fill your spa with fresh water from a garden hose (#40) while adding the necessary chemicals (#30-33). Remember, it is essential to shock chlorinate after each refill before entering and using your spa. Follow the same procedures as outlined in START-ING YOUR SPA (#37-43).

SPA LIGHT BULB REPLACEMENT

55. To replace a burned out bulb, open the

equipment bay door to find the spa light tunnel located at the rear of the equipment bay. The light housing is accessed in this manner.

Remove the lamp socket from the back of the light assembly by turning and pulling at the same time. Gently pull the bulb out of the lamp socket, and replace it with bulb, part #69-0436, available from your Pacific Marquis Dealer. Install the lamp socket back into the light assembly, and close the equipment bay door.



WINTERIZING

56. Your Pacific Marquis spa was designed for year round use and enjoyment and many people find the combination of hot water, hydrotherapy jets and cool air temperatures to be especially soothing. However, if you decide to discontinue the use of your spa for the winter, or for any

other extended period of time, we suggest you follow the steps below.

NOTE: Damage can occur to equipment during long periods of inactivity/non use due to condensation.

- A. Turn thermostat to the LOW position (#23).
- B. On 230 V units turn OFF the main circuit breaker or disconnect panel. (#7-11).
- C. Drain the spa (#49-50).
- D. Remove all residual water from the seats and footwell. If necessary, use a bucket to bail out the remaining water, then dry the spa with towels. A wet/dry vacuum may also be used.
- E. Using a wet/dry vacuum, place the nozzle over each jet to remove water from plumbing lines, starting with the highest jet and working to the lowest jet.
- F. Disconnect plumbing lines at heater as well as suction and discharge of pump. Use wet/dry vacuum to remove water from pump inlet.
- G. Wipe down the tile line (#51).
- H. Remove, clean, dry and reinstall the filter cartridge (#53).
- Reinstall the Pacific Marquis Energy Cover (#46). Contact your Pacific Marquis dealer about the availability of a protective spa cover which encloses the entire spa, including the Energy Cover.

SPA MAINTENANCE SCHEDULE

57. DAILY

Replenish the water level by filling up to ½ the skimmer opening (#40). Check and clean the catch basket (#53).

Check the water (pH) balance. Adjust if needed (#31).

Check chlorine level and adjust if needed (#33).

For proper filtration, the water should be circulating for at least four hours a day (#27,45).

58. WEEKLY	Wipe down the water line (#51). Remove the filter cartridge (#53), and rinse thoroughly with a hose and high pressure nozzle. Soak in a solution of trisodium phosphate (TSP) if the spa is equipped with an ozone sanitation system.
59. MONTHLY	Soak the filter cartridge in a solution of trisodium phosphate (TSP) or any strong, nonsudsing detergent. Rinse thoroughly in clear water.
	Clean the spa Energy Cover (#46).
	Drain the spa completely, refill with water and replenish chemicals (#49,40,30-33).
60. EVERY THREE MONTHS	 While the spa is drained, the interior can be sponged with a spa cleaner and rinsed (#51).
	NOTE: Do not wax the surface as the wax will dissolve into the water and clog the filter.

ROUBLESHOOTING

61. EVERY SIX MONTHS

PLEASE NOTE: The following corrective actions may be performed by the spa owner. If the trouble cannot be corrected in the steps below, please refer to your Pacific Marquis Dealer for service. (Improper servicing by an unauthorized serviceman or spa owner could result in damage that will not be covered by the warranty or could cause serious

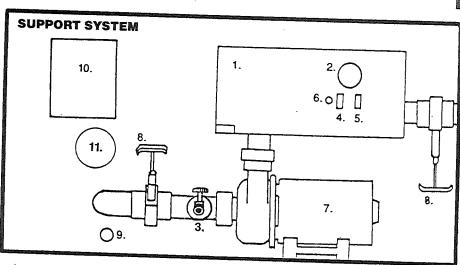
Oil wood skirt with protective sealant.

injury.)					
SYMPTOMS		CORRECTIVE ACTION			
Equipment does not operate		Make sure the equipment bay door is completely closed.			
		Check the circuit breaker in the main circuit panel.			
		Check that the shut-off valves are completely open (#17).			
Pump does not work (in low speed circulation)		Flip the TIME CLOCK BYPASS switch to CONTINUOUS OPERATION (#28).			
		Check for blockages or restrictions at the main drain and catch basket (#38,53).			
		Inspect the filter cartridge for dirt and debris. Clean or replace (#53).			

Pump does not work (in high speed circulation)		Push the air switch button marked JETS HI/LOW.
		Check the above items in "Pump does not work (in low speed circulation)."
		Push the air switch button marked JETS HI/LOW.
		Check the spa water level. Water must be ½ the depth of the skimmer opening (#40).
Inadequate jet action		Check that the shut-off valves completely open (#17).
inducquate for detail	_	Be sure that the air control valve is open (#25).
		The filter cartridge may be clogged. Pull the cartridge from the cannister (#53). If the jet action improves, clean or replace the filter (#53,59).
		Check all steps above in "Equipment does
		not operate."
		Check the High-Limit Reset switch in the equipment bay. Push to reset (#:18-19).
No heat		Check that the thermostat dial is set to the desired setting (#23).
		Remember: Do not expect hot water immediately from the jets. The heater will take several hours to heat the spa to the desired temperature.
		Inspect the filter cartridge for dirt and debris (#53).
Underwater spa light does not work		Push the button marked "Light" on the Spa Side Control (#21).
		Tighten the light bulb in the socket (#55).
·		Replace the light bulb (#55).
Water is cloudy		Check the water chemistry and balance as needed (#30-33).
		Clean or replace the filter cartridge (#53,

SUPPORT SYSTEM





6. INTERLOCK SWITCH

- 1. CONTROL BOX
 2. TIME CLOCK
 3. HOSE BIB (DRAIN)
 4. CONTINUOUS/TIMER SWITCH
 5. POWER ON/OFF SWITCH
 6. INTERLOCK SWITCH
 6. INT

- 7. 2 SPEED PUMP 8. SLICE VALVE 9. DRAIN VALVE 10. OZONE GENERATOR
- 11. LIGHT TUNNEL

CUSTOM THERAPY SERIES WARRANTY REGISTRATION

REGISTRATION MUST BE RETURNED WITHIN TEN (10) DAYS OF PURCHASE.

NAME OF PURCHASER		DATE PURCHASED				
HAME OF FOROITABLE						
ADDRESS						
CITY	STATE	ZIP				
YOUR SIGNATURE		TELEPHÔNE				
SPA MODEL	COLOR	SERIAL NUMBERS SPA / EQUIP.				
DEALER'S NAME						
DEALER'S ADDRESS						
RETAIL PURCHASE PRICE \$						
I HAVE RECEIVED AND READ THE OWNERS MANUAL						
I HAVE READ THE SAFETY PRECAUTIONS FOR MY SPA $\ \Box$						
optional information:						
Age: 🗆 18 to 30, 🗆 31 to 45, 🗀 46 to 60, 🗔	60 and older					
☐ Single ☐ Married ☐ Children		·				
How do you plan to use your spa/bath?						
[A] Recreation [B] Entertainment						
[C] Health Therapy [D] Business/Comme	rcial .					
How did you find out about Pacific Marquis?						
[A] Friend [B] Newspaper [C] Ma	agazine [D] TV					
[E] Radio [F] Other						
Have you owned a pool or spa before?	YES NO					
How do you plan to install your spa?						
[A] Self [B] Contractor [C] Dealer		O. Cr.:				
mail promptly:		Spas of distinction.				

MARQUIS CORP. 596 HOFFMAN RD. INDEPENDENCE, OR 97351 (503) 838-0888

