



ENJOY Your QCA Spa Q2000 Spa Pak

OWNER'S MANUAL

This owner's manual is for YOU! It will show you how to operate and maintain your very own spa. We think it is important for you to take a few moments and get acquainted with your new spa operation. Please keep this manual available for references.

QCA Spas would like to congratulate you on your purchase and we sincerely hope you enjoy your QCA Spa.

SERIAL NUMBER _____

18 DIGIT SPA NUMBER _____



TABLE OF CONTENTS

<i>Air Control</i>	6
<i>Cleaning the Filter Cartridge</i>	7
<i>Diagnostic Messages</i>	6
<i>Filter Maintenance</i>	7
<i>Hyperthermia Description</i>	3
<i>Initial Start Up</i>	4
<i>Installation Instructions</i>	4
<i>115/230v Installations</i>	4
<i>Prevention of Freezing</i>	8
<i>Refilling your Spa</i>	6
<i>Removing the Filter Cartridge</i>	7
<i>Safety Instructions</i>	3
<i>Spa and Cabinet Maintenance</i>	8
<i>Spa Location</i>	4
<i>Spa Top Side Control</i>	5
<i>Troubleshooting</i>	10
<i>Vacation Care</i>	8
<i>Warranty Registration</i>	9,11
<i>Water Care Program</i>	6
<i>Winterizing</i>	8

IMPORTANT SAFETY INSTRUCTIONS

when installing and using this electrical equipment, remember to always observe safety precautions, including the following:

1. **READ AND FOLLOW ALL INSTRUCTIONS.**

2a. **DANGER** - To reduce the risk of injury, do not permit children to use this product unless they are closely supervised.

2b. **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 hot tub unless they are supervised at all times.

3. Connect to a grounded, grounding type receptacle only. Dedicated circuit recommended.

4. Do not bury power cord.

5. **WARNING** - To reduce the risk of electrical shock, replace damaged cord immediately.

6. **DANGER** - To reduce the risk of injury to persons, do not remove suction fittings.

7. This appliance is provided with a ground-fault circuit-interrupter. Before each use, with the plug connected to the power supply and with the unit operating, push the test button. The unit should stop operating and the reset button should appear. Push the reset button. The unit should now operate normally. If the interrupter fails to operate in this manner, there is a ground current flowing indicating the possibility of an electric shock.

Disconnect the plug from the receptacle until the fault has been identified and corrected.

8. Install to provide drainage of compartment for electrical components.

8. **RISK OF ELECTRIC SHOCK.** Install at least 5 feet (1.5m) from all metal surfaces. (A spa may be installed within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum No. 8 AWG (8.4mm²) solid copper conductor attached to the wire connector on the terminal box that is provided for this purpose.)

10. **DANGER - RISK OF ELECTRICAL SHOCK.** Do not permit any electrical appliance, such as a light, telephone, radio, or television, within 5 feet (1.5m) of the spa or hot tub.

11. **To reduce the risk of injury:**

a. The water in a spa or hot tub should never exceed 104°F (40°C). Water temperatures between 100°F (38°C) and 104°F (40°C) are considered safe for a healthy adult. Lower

water temperatures are recommended for extended use (exceeding 10-15 minutes) and for young children.

b. Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit spa or hot tub water temperatures to 100°F (38°C).

c. 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 +/-5° (3°C).

d. The use of alcohol, drugs, or medication before or during spa or hot tub use may lead to unconsciousness with the possibility of drowning.

e. Persons suffering from obesity or with a medical history of heart disease, low or high blood pressure, circulatory system problems or diabetes should consult a physician before using a spa or hot tub.

f. Persons using medication should consult a physician before using a spa or hot tub since some medications may induce drowsiness while other medications may affect heart rate, blood pressure, and circulation.

SAVE THESE INSTRUCTIONS

Just a quick note,

For your own security...Prolonged immersion in water that is warmer than normal body temperature can result in a dangerous condition known as HYPERTHERMIA. The causes, symptoms, and effects of hyperthermia may be described as follows: Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal 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 (1) unawareness of impending hazard, (2) failure to perceive heat, (3) failure to recognize the need to exit the spa, (4) physical inability to exit the spa, (5) fetal damage in pregnant women, and (6) unconsciousness resulting in a danger of drowning. WARNING - the use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia in hot tubs and spas.

Spa Location *The selection of a site for the installation of your spa is a very important decision and should be undertaken keeping several factors in mind.*

1. Always check your local codes before installing your spa. A clear understanding of buildings, fences, gates, electrical and plumbing guidelines will be invaluable.
2. Select a location that will compliment your lifestyle and your home. The spa will become an integral part of your life and therefore should be placed advantageously.
3. The position of the spa in relation to surrounding terrain should be considered. Locating the spa near or directly under trees not only cuts off the sun thereby depriving you of natural heat, but also necessitates the physical removal of leaves and debris. Airborne dirt and debris may also be carried into the spa by prevailing winds. In addition, an uncovered spa with wind blowing across the top will tend to lower water temperatures; therefore you may wish to shield your spa from direct winds.
4. You may wish to consider an indoor installation. An indoor spa located off of a bedroom or family room can offer relaxing solitude or enjoyable gatherings of friends or family. Care should be taken in providing protection from possible water damage due to splashing. High humidity levels relating to the spa can also be a source for damage and should be planned for in the construction stage.
5. Your portable spa with a cabinet has been designed to be self-supporting. Any further reinforcement or support is not required when placed upon a sound foundation. In order to prevent damage to the cabinet and spa, be certain to locate the spa on a solid, level foundation capable of maintaining the weight of the spa when filled with water.
7. Install your spa in a location, which allows easy access to the equipment bay.
8. Before filling with water, be sure the spa is in its final position and that hoses, tools, etc. are not under the spa.

THIS SYSTEM COMES WITH A PREWIRED GFCI IN-LINE CORD. IF THE CUSTOMER DESIRES TO HARD WIRE THE UNIT, PLEASE FOLLOW THE INSTRUCTIONS BELOW.

Installation Instructions

Electrical-General

Prior to performing any service to the spa package, turn OFF ALL primary electric power at the main circuit breaker or disconnect panel.

Opening the electrical control box can make all field electrical connections.

All electrical connections to this spa package must be accomplished by a qualified electrician in accordance with the National Electric Code or the Canadian Electric Code and in accordance with any local electrical codes in effect at the time of installation.

All connections should be made in accordance with the wiring tab enclosed in the electrical control box.

These spa packages are designed to operate on 60Hz Alternating Current only, at a voltage of 115 volts as required.

Spa packages with a 115-volt rating require a two wire electrical service, plus ground (line 1, neutral and ground). Connections should be made using copper conductors only. The connecting wire and circuit breakers or fuses must all be sized to accommodate the Total Ampere load as specified on the equipment module data label.

115v Installation requires 15-amp circuit breaker. A bonding lug has been provided on the equipment module to allow connection to local ground points. To reduce the risk of electrical shock, a #8 AWG solid copper bonding wire should be run from this lug to any metal ladders, water pipes or other metal within 5 feet of the spa.

Initial Start Up

1. Fill the spa before plugging into the electrical circuit. Be sure all valves are open and all union nuts are tight
2. Check for plumbing leaks.
3. Be sure all suction valves to equipment pack are open.
4. Set filtering cycles according to control panel instructions.

PLEASE NOTE: To Overseas owners 50 Hz, 230-volt units should be wired to the national code in the country of the owner's residence.

YOUR • QCA • SPA • EQUIPMENT



Q2000 Control

Initial Start Up

When first powered up, your spa will automatically heat and maintain 100° F or 38° C until you change the set temperature.

Temperature Adjustment (80° F - 104° F)

Press the set pad to display the temperature previously set. Pressing the pad a second time will cause the set temperature to increase or decrease in 1° F increments depending upon what direction was last chosen. Each successive press will change the set temperature in the same direction. If the opposite direction is desired, release the pad and let the display revert to the actual water temperature again. Press the pad to display the set temperature, and again to make the temperature change in the desired direction.

Jets Control

Press the Jets pad once to turn on the pump and ozone generator (if installed). The pump and the ozone generator (if installed) will turn off after 15 minutes or will run until set temperature is reached.

Freeze Protection

If the high-limit sensor detects 40° F (4°C) then the pump is automatically activated to provide freeze protection. This is a normal spa function: no corrective action is necessary. The pump stays on until the sensor detects 45°. Freeze protection is enabled regardless of the spa's status.

WARNING

This equipment generates and uses radio frequency energy and if not installed and used properly, that is in strict accordance with the manufacturer's instruction may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a class B computing device in accordance with the specification in subpart J of part 15 of the FCC guarantee that interference will not occur in a particular installation. If this equipment does cause interference, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient the receiving antenna. Relocate the receiver with respect to the spa. Move the receiver away from the spa. Plug the receiver into a different outlet so that the receiver and spa are on different circuits. If necessary, the user may find the following booklet prepared by the Federal Communications Commission helpful: "How to identify and resolve radio-TV interference problems." This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000 00345-4.

Diagnostic Messages

OH “Overheat” (Spa is deactivated)

DO NOT ENTER THE WATER. If the spa water has reached 112° F, remove the spa cover to cool the water. At 110° F, the spa should reset itself. If the high-limit sensor detects 118° F, the spa will shut down. When the spa cools to 110° F, press any button to reset the spa. If the spa will not reset, then shut off power to the spa and call your dealer or service organization.

Sn “Sensor” (Spa is deactivated)

The high-limit sensor or water temperature sensor is not working. Call your dealer or service organization.

Air Control

The air control knob is located next to the spa control panel. Turning the knob counterclockwise will increase the air flow to the hydrotherapy jets. Turning the knob clockwise will decrease the air flow.

Warning! Shock Hazard! No User Serviceable Parts.

Do not attempt service of this control. Contact your dealer or service organization for assistance. Follow all owners' manual power connection instructions. A licensed electrician must perform installation and all grounding connections must be properly installed.

Spa Care and Maintenance

It is recommended to completely drain the spa at least every other month. Otherwise, the water becomes chemically "saturated" and no longer responds to regular chemical upkeep. The spa should also be drained before long periods of disuse, or for equipment repair.

Optional Draining of the Water

Simply siphon water from spa with garden hose.

A sump pump may be used to pump water from spa.

Use a wet / dry to remove remaining water.

Refilling your Spa

1. Shut off the main breaker to your spa equipment pack.
2. Fill spa with water using a garden hose.
3. Turn power back on, spa will automatically start to run and heat water to set temperature.

Your Water Care Program

Before adding chemicals to your spa, do a full water analysis with a test kit or ask your QCA Spa dealer to conduct the water test for you.

Step 1: Always have the circulation system running before adding any chemicals. As you fill your spa to the level recommended by the manufacturer, add cleaning agent to prevent mineral staining and to protect equipment against scale and corrosion. Circulate for one hour.

Step 2: "Balance" the water so that it is neither alkaline (scale forming) nor acidic (corrosive). Balanced spa water should be 7.2 - 7.8 on the pH scale, with total alkalinity (the measure of the ability of water to resist a change in pH) in the range of 80-120 parts per million (ppm).

- A. If pH is lower than 7.2, add pH UP.
- B. If pH is higher than 7.8, add pH DOWN.
- C. If total alkalinity is below 80, add ALKALINITY UP.

Step 3: Shock treat the water with non chlorine shock to destroy any organic contaminants that may have accumulated in the spa during filling.

Step 4: A bromine residual of 2.0 - 4.0 ppm, as determined by your test kit, should be maintained at all times.

We suggest you follow a regular maintenance program to keep your spa water fresh and crystal clear.

Daily Checklist

1. Test for proper chlorine or bromine level. Proper bromine level should be maintained at 2.0 - 4.0 ppm.
2. Test pH levels and adjust if needed. If you are having difficulty keeping pH properly balanced, it may be an indication that total alkalinity needs adjusting. Have your dealer test the water and adjust if needed.

Weekly Checklist

1. Add Clarifier to help the filter remove small particles and to retain water clarity.
2. Add Chelating Agent to protect your equipment against stains, scale and rust.
3. For spas located outdoors or subject to a great deal of sunlight add Algaecide to guard against algae.
4. Shock your spa weekly with Oxidizer to remove contaminants such as ammonia, body oils and foreign matter. Unless spa water is routinely shock treated, contaminants will accumulate to cause eye and skin irritation, odors and cloudy dull water appearance.
5. To eliminate and prevent foaming add a small amount of a NON FOAMING agent as needed.

GENERAL GUIDELINES

* NEVER MIX CHEMICALS TOGETHER

- Add only small amounts of each chemical at a time until the desired level is achieved. Do not exceed dosage rates on label directions.
- Keep spa free of debris and cover spa when not in use.
- Circulate the water for 2-4 hours each day to maintain proper filtration. Clean your filter with FILTER CLEANER every 1-2 months.
- Remove oils and grease around water line with a cleaner on a weekly basis.
- In heavily used spas; water should be drained and refilled every two months or whenever it becomes difficult to maintain proper chemical levels.

NOTE: Not maintaining your water can result in damage of your spa jets, filter, etc. This damage, due to incorrect water maintenance is not covered under warranty.

Filter Maintenance

*As with any water filtering system, the filter cartridges may become clogged with particles or with calcification that will result in reduced water flow. In your QCA Spa, it is important to maintain a clean, unobstructed filtering system. This not only provides the maximum performance from the hydrotherapy jets, but also allows the 24-hour filtration system to function effectively. We recommend the filter cartridges be cleaned (either spraying clean with water or soaking to dissolve minerals) **EVERY MONTH.***

WARNING: Failure to maintain the cartridges in a clean, unobstructed manner will result in reduced water flow through the heater assembly, which may cause the High Limit Thermostat to "trip". If this high limit "trip" occurs during sub-freezing temperatures and goes unnoticed, the spa water may freeze. Any damage to the spa (from freezing), which is a direct cause of poor maintenance, will not be covered by warranty.

Removing the Filter Cartridge

The cartridge of the in-line filter must be removed for cleaning. This is accomplished as follows:

1. Turn off all electrical power to the system.
2. Remove skimmer basket through front of skimmer.
3. Remove restrictor plate from top of filter cartridge.
4. Pull filter cartridge out through front of skimmer. (The Dream Master will have two 10 Sq. Ft. filter cartridge stacked inside the skimmer. The Dream Star filter will have one 10 Sq. Ft. cartridges.)

Cleaning the Filter Cartridge

1. Hold the cartridge in an upright position and spray downward into the pleats of the fabric with a garden hose to flush away debris. Cleaning will be easier if the garden hose nozzle can be adjusted to a single jet spray. (This may be done on weekly basis)
2. After hosing off the cartridge, it is highly recommended that the cartridge be allowed to soak in a filter-cleaning solution available through your local dealer. Soak the cartridge for 24 hours to remove body oils and body lotions that become impregnated in the cartridge fabric during filtration. Rinse the cartridge thoroughly before placing it back into the filter housing.

NOTE: *We recommend after cleaning to allow the filter to dry before replacing. We suggest having an extra filter on hand.*

3. If the cartridge is coated with algae or bacteria or a hard, solid material, (which it may indicate a calcium build-up) on the fabric. This build-up can be removed by soaking the cartridge in proper cartridge cleaning solution available through your QCA dealer. When using this solution, follow instructions provided on label.
4. Return the clean filter cartridge to the housing and replace the restrictor plate and basket.

Vacation Care Instructions

If you plan to be away, follow these instructions to maintain the water quality:

Short Time Periods (3-5 Days):

Prior to leaving:

1. Adjust the pH by following the instructions outlined in the water quality and maintenance section.
2. Follow your program guidelines for sanitation and lock your thermal cover in place using the lock-downs.
3. Upon your return, sanitize the water (super chlorinate, if necessary) and balance the pH.

IMPORTANT NOTE: *Spa water sanitizer such as dichlor chlorine maintain their level of effectiveness substantially longer in cool water than in hot water.*

Long Time Periods (4-15 Days)

Prior to leaving:

1. Adjust the pH as required.
2. Follow your program guidelines for sanitation and lock your thermal cover in place using the lock-down.
3. Upon your return, check the level of sanitation of your spa water. If the chlorine test reads "O" and you have been gone an extended period of time, SUPER-CHLORINATE the spa water to ensure all organisms and algae are oxidized. The spa water will be safe for you to use once the Free Chlorine Residual has dropped below 5.0 ppm.

Prevention of Freezing

The QCA Spa has been designed and engineered for year-round use in any climate. The energy efficiency of the spa may decrease during these cold periods. If a freeze condition is detected, the pump is automatically activated. This is a normal spa function; no corrective action is necessary. Freeze protection is enabled regardless of the spa's status.

Winterizing

In very cold weather you may not want to venture outside to use your spa. In this case, you may move it to a heated area, or leave it as is until the weather warms. If you do leave the spa unused for a long period of time in severely cold weather, you should winterize the spa to avoid accidental freezing due to a power or equipment failure.. Follow these easy steps: Turn power to the spa OFF. Drain the spa. Use a wet vac to suck or blow out the air injectors, water jets and water suction fittings. Add 1-3 gallons of RV antifreeze, depending on the size of the spa, to all the air injectors, water jets, suction drains, and filter. **Caution: Any lines not receiving adequate antifreeze are subject to freeze damage!**

Spa and Cabinet Maintenance

Acrylic Finish - The acrylic finish on all QCA spas is impervious to most of the problems associated with non-acrylic finished spas and requires very little effort to keep it looking bright, shiny and clean. Every one or two months the spa should be drained, cleaned, polished and refilled. For the cleaning, use any non-abrasive cleaner. There are several non-abrasive products on the market that can be used for polishing. Made specifically for acrylic spas are cleaner/polish/sealer combinations, which contain reactive silicones instead of wax. If these are not available, any high quality silicone automotive polish will suffice.

Redwood Spa Cabinet Care- Your spa cabinet is handcrafted of clear redwood. Unfortunately all woods exposed to weather and moisture may warp to some degree. However if you wish to retain your cabinet's original deep rich look and protect it from warpage, we recommended applying a good quality wood protector and moisture sealant. The spa's environment such as the amount of light, or humidity, will determine how often repeat applications are required. Consult your local hardware store for wood finishing products and their proper application.

Weather Guard Cabinet Care – Handcrafted maintenance free cabinet surfaces may need to be wiped down from time to time with a soap and water solution or simply sprayed with a garden hose. Use of harsh chemicals to clean the surface will cause the cabinet to discolor.

PLEASE NOTE:

We cannot be responsible for any moisture damage to your wood cabinet. For your protection, cabinets must be moisture sealed.

WARRANTY REGISTRATION

This warranty applies to spas manufactured by QCA DREAM SERIES™ Spas and sold to an original consumer purchaser at retail ("Purchaser") after June 1, 1998. To validate this warranty, the Purchaser must complete the enclosed warranty registration card and mail it to QCA/DREAM SERIES™ within 30 days of deliver of the spa. RETURN OF THE OWNER REGISTRATION CARD IS A CONDITION OF WARRANTY COVERAGE. This warranty is exclusive and supersedes all other representations or obligations of QCA /DREAM SERIES™, whether express or implied and whether oral, written or printed.

Your Serial Number is positioned within the equipment compartment of your QCA Spa.

Date Purchased:

Date Installed:

Dealer:

Address:

Telephone:

Spa Model:

Serial Number:

Warning: Elderly persons, infants and anyone subject to heart disease, diabetes, high or low blood pressure, strokes, epilepsy or similar afflictions should not enter a spa alone and without consulting a physician. Unsupervised use by children should be prohibited. Never use a spa while under the influence of alcohol, anti-coagulants, antihistamines, vasoconstrictors, vasodilators, stimulants, hypnotics, narcotics, or tranquilizers. If you are taking medications of any kind, or being treated for any illness, consult your physician prior to the use of the spa. A spa should be kept at temperatures less than 104° F or 40° C for personal safety and health.

To validate your warranty the enclosed warranty must be filled out and returned to QCA Spas, Inc. within 30 days from date of purchase.

For your warranty see enclosed located inside your spa shell.

Troubleshooting

Please Note: the spa owner may perform the following corrective actions. If the trouble cannot be corrected in the steps below, please refer to your QCA 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 injury.)

SYMPTOMS

CORRECTIVE ACTION

Equipment Does Not Operate

Check to see if the power cord is plugged in.
Test the GFCI to see if it has "tripped". **IMPORTANT:** If the GFCI trips repeatedly, do not use the spa, and contact your Dealer.
Check the circuit breaker in the main circuit panel.

Pump Does Not Work

Inspect the filter cartridge for dirt and debris. Clean or replace.
Check for blockages or restrictions at the main drain and catch basket. Check for blockages or restrictions at jets.

Pump Does Not Work (high speed jet action)

Push the button for high-speed jet.
Check the above items if "Pump does not work"

Inadequate Jet Action

The filter cartridge may be clogged. Pull the cartridge from the filter canister. If the jet action improves, clean or replace the filter.
Check the level of the water.

No Heat

Check the spa water level. Water must be above minimum water level. Check jet orifice for blockage. Clear if blocked.
Check all steps in "Equipment does not operate."
Check that the temperature dial is set for the desired temperature. Remember: Do not expect hot water immediately from the jets. The heater will raise temperature 1-2 degrees per hour if covered with Soft TopTM Inspect the filter cartridge for dirt and debris.
Check if pump is operating. Follow the steps in "Pump does not work".

Water is Cloudy

Check the water chemistry balances and replenish as needed.
Clean or replace the filter cartridge.

To receive your **FREE** gift to help maintain your spa and to **VALIDATE** your spa warranty, return the **PREPAID** registration card below within the next **THIRTY** days. To immediately register your new spa; you may log onto our web site at **qcaspas.com**