

spa control operation

THE QUEST



PUMP PRIMING (Pr)

Pump priming feature begins at start-up. When your spa is energized, the LCD window displays a "Pr" message. This mode lasts approximately four to five minutes, if not exited manually by pressing the TEMP pad.



UNDERWATER AND ENTRYWAY LIGHTS

Press the LIGHT pad to turn the underwater and Entryway lights on and off. The low-voltage system produces a night light for evening use and makes entering and exiting the spa safer. After being on for 60 minutes, the lights automatically turn off.

AQUA AMBIANCE™

Use SPA LIGHT pad. Step one: turn on light. Step two: turn off and then on within 2-3 seconds. Repeat for all options: white, aqua, violet, blue, gold, green, red, color wash, and blinking party mode. When switched off for over 10 seconds your last color mode will be saved in memory. To reset synchronization (two light systems) turn light off for 5 seconds and turn back on.

WATERFALL FEATURE

The Waterfall feature and Convenience Center attaches securely to the dual Vortex skimmer tops. The water flow is controlled by an independent valve.

NOTE: Don't remove the waterfall top while the pumps are running.



REMOTE CONTROL



JETS

Use the JETS pad on the bather panel or remote control. First press of the JETS pad activates pump on low-speed (and starts soak timer). Second press of the JETS pad activates pump on high-speed. Third press of the JETS pad turns jets off for all-quiet mode. Fourth press of the JETS pad turns pump back to low-speed. If the pump is already on low (heating, filter cycle) then the first press starts the soak timer. After running on low- or high-speed for 15 minutes, the pump automatically turns off (unless in heating or filtering cycle).

spa control operation



SOAK TIMER

The soak timer starts the first time you press a JETS pad. The LCD window displays the elapsed time (1-30) for 55 seconds then switches to the current water temperature for five seconds then back to the timer. It continues to alternate for the entire 30 minutes. The timer runs for 30 minutes regardless of other functions in use (jets, temperature, or light). You can manually cancel the timer by pressing the TEMP+- pad and then the LIGHT pad.

CONSTANTCLEAN™ WATER MANAGEMENT WITH BUILT-IN SANITATION SYSTEM

(See Spa Frog Sanitation System page 48)

Factory Default Settings:

- Filter Cycle Duration: F2 (2 hours)
- Filter Cycles: 2C (twice per day)
- Smart Logic: 1H (1 hour)

These settings represent the most commonly used settings, but your use may be different, depending upon many variables – frequency, number of bathers, duration, water capacity, etc. These variables affect the quality of water and the way it should be managed to achieve the most effective cleansing. Selectable choices for the settings of the operation systems allows flexibility and ensures your Marquis spa remains easy to maintain for your particular set of circumstances.

SOLID-STATE OZONATOR

The ozone generator functions whenever the system is running on filter or clean up cycles. You should occasionally inspect your ozonator to ensure it continues to light (see MAINTENANCE, Every Three to Four Months).



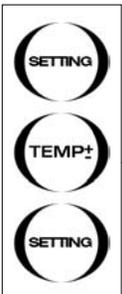
Marquis Ozonator reduces the need for chemical sanitizers.

SMARTCLEAN FILTRATION

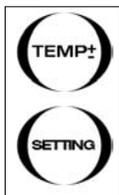
Your spa is preset at the factory with a default setting to filter itself using the jet pump on low-speed for two hours twice in a 24 hour period. These settings represent the filter settings necessary for average use. The timing of the first filter cycle is determined by when the spa was initially energized. The first cycle begins six minutes after this initial power-up. The second filter cycle begins 12 hours after the first cycle.

To adjust the filter settings

Press the SETTING pad to display the filter time settings (F1, F2, F4, F6). Use the TEMP+- pad to scroll through the options. When desired selection has been reached, press the SETTING pad again to enter selection and advance to the filter cycle settings (2C, 1d, 1n). For example, if you select 2C and F2, your spa will filter two hours twice a day for a total of four hours of filtration daily.



spa control operation



Use the TEMP+/- pad to scroll through filter cycle options. When desired selection has been reached, press the SETTING pad to enter selection and advance to the smart logic settings.

Selectable filter cycles and cycle duration

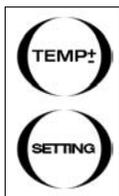
- 2C: twice per day (once every 12 hours)
- 1d: once during the day
- 1n: once during the night
- F1: 45 minutes
- F2: 2 hours
- F4: 4 hours
- F6: 6 hours

SMARTCLEAN™

Since a spa is always covered when not in use, it stays fairly free of debris or outside contamination. Contamination to a spa's water occurs during usage, so filtering immediately after usage is the most effective time to clean the spa water. Your spa is preset at the factory with a default setting to filter for one hour (1H) every time your spa is used. This filtration cycle begins 30 minutes after the spa light or jet pump has been deactivated. The pump runs on low-speed to filter the water for the cycle's duration.

Selectable SmartClean Settings

- 1H: 1 hour
- 2H: 2 hours
- 3H: 3 hours
- 4H: 4 hours
- OH: Off



To adjust the SmartClean settings:

Use the TEMP+/- pad to scroll through options. When desired selection has been reached. Press SETTING pad to enter selection and exit settings mode.

TEMPERATURE DISPLAY AND ADJUSTMENT

Factory Default Settings:

- Temperature: 102°F (39°C)



The LCD window displays the actual water temperature. Pressing the TEMP+/- pad makes the numbers flash, then pressing the pad again (repeatedly) increases the set temperature one degree at a time, up to 104°F (40°C). After a short pause, the actual temperature displays. Press TEMP+/- pad repeatedly to decrease the set temperature to 80°F (27°C).

HEAT LIGHT

The HEAT light illuminates when the heater is on. The pump circulates on low-speed whenever the thermostat calls for heat.

spa control operation

HEAT MODE

Your spa comes preset in the standard heat mode. For most applications, the standard mode should be used. If you are in a warm weather climate and the spa does not require as much heat, the economy mode may work best. For a vacation home or for very infrequent use, the sleep mode provides filtration and circulation with lower energy demand. In economy mode your spa heats only during the filter cycle. In sleep mode your spa will maintain a water temperature that is 20°F (7°C) below the set temperature. This ensures your spa will be ready to use more quickly (allow about one hour per one degree F for heating your spa's water) when increasing the temperature to the desired level.

The spa's heat mode can be adjusted to one of three different settings:

Standard Mode (St)

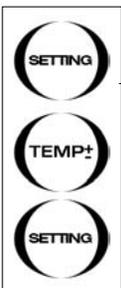
The spa water heats to the temperature as set at the bather's panel. In this mode the filtration pump turns on for two minutes every half-hour to "poll" or check the water. If heat is needed the unit heats to the set temperature. The LCD window steadily displays the actual temperature in this mode.

Economy Mode (Ec)

In this mode the spa only heats to the set temperature during a filter cycle. The LCD window displays "Ec" alternately flashing with the actual temperature when the spa is up to temperature and "Ec" steadily when the spa's water temperature is below the set temperature.

Sleep Mode (SL)

Your spa will maintain a water temperature that is 20°F (7°C) below the set temperature. Heater functions only during a filter cycle. The LCD window displays "SL" flashing alternately with the actual temperature when the spa is up to set temperature and displays "SL" steadily when below set temperature.



To Adjust the Heat Mode:

First press the SETTING pad to display the heat mode settings (St, Ec, SL). Use the TEMP+/- pad to scroll through the options. When desired selection has been reached, press SETTING pad again to enter selection and advance to the filter cycle settings (F1, F2, F4, F6).

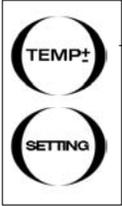
Maintenance Reminders

- **CL:** Clean Filter LED will illuminate every 30 days.
- **CH:** Change Water LED will illuminate every 90 days.

spa control operation

SYSTEM LOCK

Once you find and establish the settings that work best for your individual needs, use system lock to keep from inadvertently changing the settings.



Press the TEMP+- pad and then immediately press the SETTING pad. Unlock by repeating sequence. While the system is locked, you may still operate the jets and light. The LCD window displays LC to indicate the system is locked when you try to change the temperature or settings.

REMOTE CONTROLS

Underwater and Entryway lights

Press the LIGHT pad to turn the underwater and Entryway lights on and off. The low-voltage system produces a night light for evening use and makes entering and exiting the spa safer. After being on for 60 minutes, the lights automatically turn off.



Jets

First press of the JETS pad activates pump on low-speed (and starts soak timer). Second press of the JETS pad activates pump on high-speed. Third press of the JETS pad turns jets off for all-quiet mode. Fourth press of the JETS pad turns pump back to low-speed. If the pump is already on low (heating, filter cycle) then the first press starts the soak timer. After running on low- or high-speed for 15 minutes, the pump automatically turns off (unless in heating or filtering cycle).



Dolphin Remote spa functions

Use the Light and Jets pads to control spa functions.

Dolphin Remote Soundsations™ operation

(See SPA CONTROL OPERATION, Remote Controls.)

spa control operation

DESTINY, REWARD AND EPIC



Pr

PUMP PRIMING (Pr)

Pump priming feature begins at start-up. When your spa is energized, the LCD window displays a "Pr" message. This mode lasts approximately four to five minutes, if not exited manually by pressing the TEMP+ pad.



UNDERWATER AND ENTRYWAY LIGHTS

Press the SPA LIGHT pad to turn the underwater and Entryway lights on and off. The icon appears in the lower center of the display when the light is on. The low-voltage system produces a night light for evening use. After being on for 60 minutes, the lights automatically turn off. See SETTINGS for automatic light programming.

AQUA AMBIANCE™

Use SPA LIGHT pad. Step one: turn on light. Step two: turn off and then on within 2-3 seconds. Repeat for all options: white, aqua, violet, blue, gold, green, red, color wash, and blinking party mode. When switched off for over 10 seconds your last color mode will be saved in memory. To reset synchronization (two light systems) turn light off for 5 seconds and turn back on.



WATERFALL LIGHT

Press WATERFALL LIGHT pad to turn on the Waterfall light. The Waterfall light operates the same as the Aqua Ambiance light. The icon appears in the lower right of the display when the light is on.

WATERFALL FEATURE

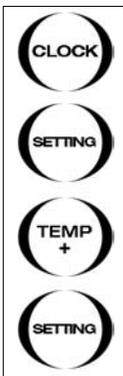
The Waterfall feature and Convenience Center attaches securely to the dual Vortex skimmer tops. The water flow is controlled by an independent valve. **NOTE:** Don't remove the waterfall top while the pumps are running.



SOAK TIMER

The soak timer starts the first time you press the TIMER pad. The LCD window displays "E" for the elapsed time followed by time in minutes ("00, 01, 02", etc.). A second press of the TIMER pad will exit the timer mode. The timer display and the current temperature display will alternate every 10 seconds.

spa control operation



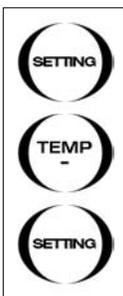
SETTINGS

Clock

Press the CLOCK pad followed by the SETTING pad. "Program" will be shown in the upper left corner of the panel display and the hour will begin flashing. To adjust, press the TEMP+ or TEMP- pad. Once the correct hour has been set, press SETTING pad to set the minutes. "Minutes" will flash. Follow above procedure to set the correct minutes.

Filter Cycle 1:

Follow Clock programming above. Then press the SETTING pad to enter Filter 1 programming mode. "Program filter 1 start time" will be shown in the upper left corner of the panel display and the hour will begin flashing. To adjust press the TEMP+ or TEMP- pads. Once the correct hour has been set press SETTING pad to set the minutes. Follow above procedure to set the correct minutes. Press the SETTING pad again and "Program filter 1 end time" will be shown in the upper left corner of the panel display and the hour will begin flashing. Follow above procedures to set the correct hour and minutes. **NOTE:** When in a filter cycle the Filter Cycle LED will illuminate.



Filter Cycle 2:

Press SETTING pad to enter filter 2 programming mode. "Program filter 2 start time" will be shown in the upper left hand corner of the panel display and the hour will begin flashing. Follow above procedure to set the correct hour and minutes. Press the SETTING pad again and "Program filter 2 end time" will be shown in the upper left corner of the panel display. Follow above procedure to set correct hour and minutes.



Spa Light:

Press SETTING pad to enter spa light programming mode. The light icon will begin flashing at the bottom of the panel display. "Start time" will be shown in the upper left hand corner of the panel display and the hour will begin flashing. Follow above procedure to set the correct hour and minutes. Press the SETTING pad again and "end time" will be shown in the upper left corner of the panel display and the hour will begin flashing. Follow above procedure to set the correct hour and minutes. Press the CLOCK pad to exit the programming mode.

NOTE: Any time during the setting of features you may exit the programming mode by pressing the CLOCK pad. If you do not want to run any of the filter modes or spa light cycles, set the start and end times for the same time.

spa control operation

HEAT MODE

Your spa comes preset in the standard heat mode. For most applications, the standard mode should be used. If you are in a warm weather climate and the spa does not require as much heat, the economy mode may work best. For a vacation home or for very infrequent use, the sleep mode provides filtration and circulation with lower energy demand. In economy mode your spa heats only during the filter cycle. In sleep mode your spa will maintain a water temperature that is 20°F (7°C) below the set temperature. This ensures your spa will be ready to use more quickly (allow about one hour per one degree F for heating your spa's water) when increasing the temperature to the desired level.

The spa's heat mode can be adjusted to one of three different settings:

Standard Mode

The spa water heats as necessary to maintain the set temperature. "Standard" will display until the mode is changes.

NOTE: The last measured temperature displayed is current only when Pump 1 has been running for at least two minutes.

Economy Mode

In this mode the spa only heats to the set temperature during a filter cycle. The "Economy" icon will display until the mode is changed. Press the JETS 1 pad to put the spa in "Standard-in-Economy" mode which operates the same as Standard mode (both Economy and Standard will display). The spa reverts to Economy mode automatically after one hour.

Sleep Mode

The spa water heats to within 20°F (7°C) of the set temperature only during filter cycles. "Sleep" will display until the mode is changed.

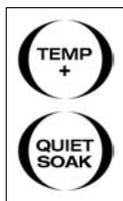
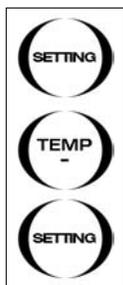
To Adjust Heat Mode

First press the Settings pad. The current heat mode will start flashing. Use the Temp- pad to scroll through the modes. When desired mode is displayed touch the Settings pad again to lock the mode.

Panel Lock

Press TEMP+ or TEMP- pad followed by QUIET SOAK pad to lock. Then press TEMP+ or TEMP- pad followed by QUIET SOAK pad to unlock.

- Lock feature locks all user settings: time, filter cycles, modes, Smart Clean and temperature settings.
- Lock feature does not lock Jets 1, Jets 2, Timer, Spa Light, Waterfall Light, Quiet Soak, or Clock.
- Secured LED will illuminate when system is locked.



spa control operation

CONSTANTCLEAN™ WATER MANAGEMENT WITH BUILT-IN SANITATION SYSTEM

(See Spa Frog Sanitation System page 48)

Ozonator Operation

The ozone generator operates when pump 1 is on low-speed in Filter Cycles and Smart Clean Cycles ONLY. The O3 icon appears to the left of the temperature display when the ozone generator is operating. The icon does not indicate if the ozone generator is actually operating. See TROUBLESHOOTING to check ozonator operation.

SMARTCLEAN™

Since a spa is always covered when not in use, it stays fairly free of debris or outside contamination. Contamination to a spa's water occurs during usage, so filtering immediately after usage is the most effective time to clean the spa water.

User Preference Settings

Suppress reminders: Displayed as (Sr.n) for no, and (Sr.Y) for yes. When set to (Sr.Y), reminders are never shown in the display. When set to (Sr.n), all reminders are shown.

Temperature display in Celsius: Displayed as (tc.n) for no, and (tc.Y) for yes.

24 hour time: Displayed as (24.n) for no (12 hour AM/PM), and (24.Y) for yes (24 hour (military)).

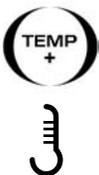
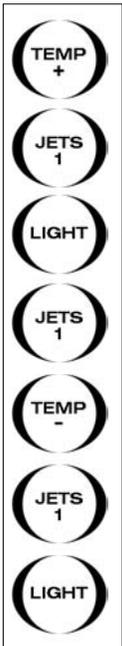
SmartClean settings: Displayed as (cc.0) for SmartClean off, (cc.1) 1 hour, (cc.2) 2 hour, (cc.3) 3 hour, and (cc.4) for 4 hour Smart Logic durations. When the spa is in a SmartClean cycle, the SmartClean LED will illuminate.

To Enter the User Preference Mode

- Press the TEMP+ button
- Press the JETS 1 button (displays (Edt))
- Press the LIGHT button (displays (USr))
- Press the JETS 1 button (displays (Sr.n))
- Use TEMP + or TEMP- pad to scroll through options
 - **Sr.n:** Reminders not suppressed
 - **tc.n:** Temperature display not in Celsius
 - **24.n:** 12 hour AM/PM
 - **cc.1:** One hour Smart Logic
- Once the desired selection has been reached press the JETS 1 pad. The last number or letter will flash. Use the TEMP + or TEMP- pad to change the setting. Press the JETS 1 pad to enter selection and return to previous mode.
- Press the LIGHT pad twice to return to normal operation.
- At any point, if a pad is not pressed within thirty seconds of a previous pad press, the mode will cancel and the spa will return to normal operation.

To Change the Set Temperature

Factory default temperature setting: 102°F (39°C). The LCD window displays the actual water temperature. Press the TEMP+ or the TEMP- pad. Each pad press changes the set temperature by one degree. Temperature can be set between 80°F and 104°F (26°C and 40°C). When the spa is heating the Heat icon will be shown in the lower right corner of display.



spa control operation



Quiet Soak

Press the QUIET SOAK pad to enter the soak mode. All automatic functions related to the pumps are disabled (i.e., filter cycles, smart clean cycles). If either pump 1 or pump 2 are operating, they will be turned off. Soak mode lasts for 30 minutes then the spa returns to normal operation. All button functions operate as normal while in a Soak mode. When in a Soak Mode, the Soak LED will illuminate.



Marquis Ozonator reduces the need for chemical sanitizers.

Maintenance Reminders

- Check Bromine LED will illuminate every 21 days. rSA will be displayed in the LCD window.
- Clean Filter LED will illuminate every 30 days. rCL will be displayed in the LCD window.
- Change Water LED will illuminate every 90 days. rCH will be displayed in the LCD window.
- Change Minerals LED will illuminate every 90 days. rCA will be displayed in the LCD window.

JETS

Use JETS 1 pad on either bather's panel or remote control. First press JETS 1 pad to activate pumps on low-speed. Second press of JETS 1 pad activates pumps on high-speed. Third press of JETS 1 pad turns jets off for all-quiet soak setting. Fourth press of JETS 1 pad returns pumps to low-speed. Repeat above procedure for JETS 2.



Pump 1: Destiny, Reward, Epic

- High-speed run timeout: 15 minutes
- Low-speed run timeout: 15 minutes (if not in filter cycle or SmartClean).
- Pump 1 icon will be shown in lower left corner of the display. It spins slowly when on low-speed, and spins fast when on high-speed.

Pump 2: Destiny, Reward, Epic

- High-speed run timeout: 15 minutes
- Low-speed run timeout: 15 minutes (if not in filter cycle or SmartClean).
- Pump 2 icon will be shown in lower left corner of the display. It spins slowly when on low-speed, and spins fast when on high-speed.



spa control operation



REMOTE CONTROL

REMOTE CONTROLS

Round floating remote

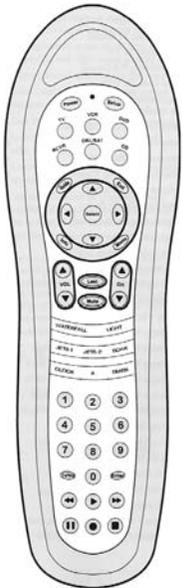
Use the jets, light, and Waterfall pads to control spa functions. See OPERATING YOUR SPA, Light, and Jets.

Spa Monitor in-house remote

See Spa Monitor manual for complete set up and operation instructions.

Dolphin Remote Control spa functions

Use the Waterfall, lights, jets, soak, clock, and timer pads to control spa functions.



DOLPHIN REMOTE CONTROL

Dolphin Remote Soundsations™ operation

It is designed with sophisticated technology that will allow you to consolidate many of your existing remote controls along with the Soundsations audio-ready system in your spa. It's packed with easy-to-use features such as:

- Preprogrammed to operate the cable converter supplied by your cable system provider.
- Preprogrammed technology for easy setup.
- Color-coded keys to quickly locate popular functions
- Code library for video and audio components
- Code Search to help program control of older components
- Learning function to allow programming with another infrared (IR) remote
- Combination IR and RF (radio frequency) capability that can send commands through the optional RF base station to devices in your house.

Before you can use your Dolphin remote, you will need to program it to operate the specific home entertainment components you wish to control. Follow the instructions detailed in Dolphin Remote manual to set up your remote and enjoy your new remote control.

spa control operation



SOUNDSATIONS™ AUDIO-READY SYSTEM

Spa location and speaker cord routing

The factory-installed speaker cord located inside the spa's equipment compartment is 100 ft. long. You must locate the spa close enough to the audio source to allow the cord to be run so it is not exposed to damage and does not create a trip hazard.

NOTE: A 200 ft. long speaker cord is available as an optional replacement for the supplied 100 ft. cord. Ask your authorized dealer for details.

Do not replace the supplied speaker cord with any other type of cord.

WARNING! Risk of electric shock: Audio source must be placed in a protected location at least five feet from the spa. Do not use a portable stereo. Do not use home audio equipment outside.

Decide on the best path for the speaker cord and then route the speaker cord out of the equipment compartment in the most appropriate manner for the installation.

The speaker cord must be installed by a licensed electrician in accordance with the National Electric Code and all local building codes. Additional installation advice from an A/V technician may be helpful or necessary if there are any special circumstances, such as connecting to unique or complicated home theater systems.

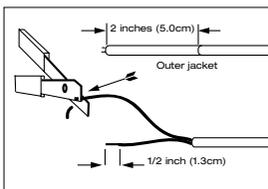
Connections

CAUTION! Risk of electric shock: The stereo cord-connection within the equipment compartment and the supplied 100 ft. cord which is used to conduct the audio signal to the spa are intended to carry a low voltage (12V) audio signal supplied by a conventional household-type audio system. The cord-connection and cord are not to be used for any other purpose.

CAUTION! Before making any connections, turn off the stereo receiver and unplug it from the power source. Failure to do so may result in damage to the system.

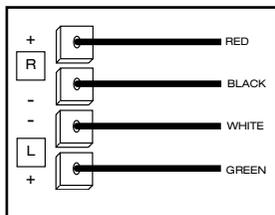
1. To prepare the end of the speaker cord, strip approximately 2" off the outer jacket.
2. To prepare the ends of the wires, strip approximately 1/2" of insulation from each wire. Then, twist the bare ends of each wire so there are no loose strands of wire.

WARNING! Never use broken or frayed wire, as damage or electrical shock may result.



Strip approximately 2" off the outer jacket of the speaker cord.

spa control operation



Wire connections.

CAUTION! Exposing too much wire or having wires with frayed ends could cause wires to touch each other, which could damage the equipment.

3. Wire connections

- A. Red = Right (+)
- B. Black = Right (-)
- C. White = Left (-)
- D. Green = Left (+)

NOTE: Do not connect speaker cord to any speaker terminals already in use.

- 4. Check all connections to the stereo receiver. Make sure all wires are connected in phase (+ to + and - to -). Correct any wiring problems before reconnecting the stereo receiver to the power source.

You should perform a routine inspection (every three months) of the Soundsations Audio System to ensure that the system is operating properly.

If the cord or cord-connection is damaged; if the door to the equipment compartment shows signs of deterioration; if excessive water is entering the equipment compartment; or if there are other signs of damage to related components, turn off the spa and have the damaged component repaired by a qualified service person.

Recommended components

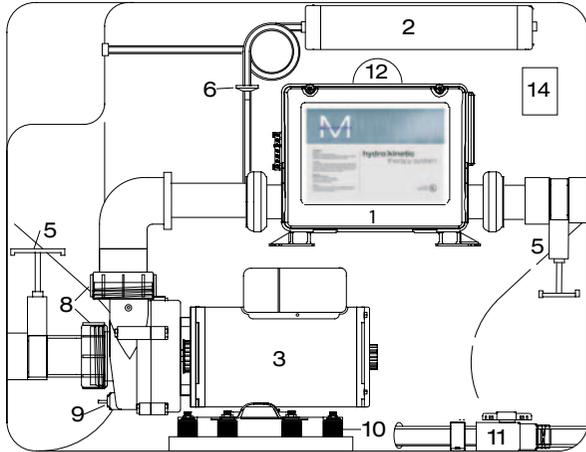
Use stereo receivers rated from 60 to 120 peak watts per channel and rated from 8 to 16 ohms.

The Soundsations audio system has automatic protection circuits to protect against overload. This circuit activates at high volume levels to reduce output, causing a decrease in volume. This is normal operation and indicates that the power input may be exceeding safe levels. If this protection circuit has been activated, turn down the volume to allow the system to reset itself and resume normal operation. Sustained listening at high volume settings is not recommended.

CAUTION! Please read this installation guide completely before the installation. Failure to follow the instructions in this guide voids all warranties on the Soundsations audio system.

equipment diagram

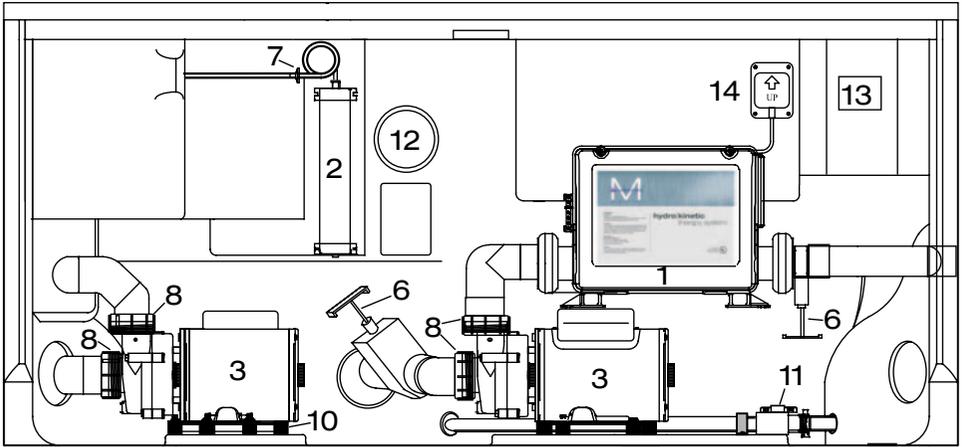
QUEST



#	Component	Quantity
1	Control box and heater	1
2	Ozonator	1
3	MP120 pump (or MP160 Pump 240V upgrade)	1
4	Mazzei injector	1
5	Slice valves	2
6	Check valve	1
7	GFCI cord (120V only)	1
8	Pump unions	2
9	Pump plug	1
10	Motor mounts	4
11	Drain valve	1
12	Light	1
14	Soundsations installation plug	1

equipment diagram

DESTINY, REWARD AND EPIC



#	Component	Quantity
1	Control box and heater	1
2	Ozonator	1
3	MP160 pumps	2
6	Slice valves	2
7	Check valve	1
8	Pump unions	4
10	Motor mounts	8
11	Drain valve	1
12	Light	1
13	Soundsations installation plug	1
14	Spa Monitor transceiver	1

troubleshooting

PLEASE NOTE: The following corrective actions may be performed by the spa owner. If the trouble cannot be corrected in the steps below, please contact your Marquis spa dealer for service. (Improper servicing by an unauthorized service provider or spa owner could result in damage not covered by the warranty and could cause serious injury.)

EQUIPMENT WILL NOT OPERATE

- Check the control panel LCD window for diagnostic code.
- 240V Spas: Check the circuit breaker on the main circuit panel.
- 120V Spas: Check the GFCI power cord and reset if necessary (see IMPORTANT SAFETY INSTRUCTIONS at beginning of manual).
- Check the condition of the power cord.

INADEQUATE JET ACTION

- Be sure the shut-off valves are completely open.
- Open the jets by turning the jet face to allow for maximum water flow.
- Check that the air control valve is open (rotate lever counterclockwise to open).
- Check for obstruction or restrictions at suction guard(s) or filters, such as leaves, etc.

NO HEAT

- Check temperature displayed in the LCD window for desired temperature setting.
- Inspect the filter cartridge(s) for dirt and debris.
- Check that the water is at proper level, 2/3 up the Vortex skimmer opening(s).
- Check HEAT MODE to be certain spa is not in SLEEP MODE.
- Lower ambient temperatures may result in heat loss.

NOTE: Do not expect instant hot water from the jets. It will take the heater 12-24 hours to heat the water to the temperature you desire.

LIGHT DOES NOT WORK

- Press the LIGHT pad on the control panel.
- Reposition the light bulb in the socket. (See REPLACING LIGHT BULB.)
- Replace the light bulb with a **6 WATT BULB (GE 918 ONLY)**.

troubleshooting

LCD DIAGNOSTIC MESSAGES

The advanced technology built into the spa allows it to perform a number of self-diagnostic system checks and it can display a variety of messages in the LCD window on the control panel.

OHH:

Over heat protection. If a malfunction occurs and the spa water reaches 112°F (44°C), the system completely shuts down. In such a condition, **DO NOT ENTER THE WATER.** Turn off all power to the spa. Remove spa cover and allow water to cool. Once the heater has cooled, reset by pushing any pad. If spa does not reset, shut off the power to the spa and contact your dealer for service. Several conditions could lead to overheating, for example, low water level, shut-off valves closed while heater is on, dirty filter, and restriction in the plumbing lines. After the power is turned back on, the spa will not restart itself until the water temperature within the spa drops to a lower, predetermined temperature.

OHS:

Over heat protection. The spa has shut down. Once of the sensors had detected that the spa water is 110 F (43.3 C). **DO NOT ENTER THE WATER.** Turn off all power to the spa. Remove spa cover and allow water to cool. Once the heater has cooled, reset by pushing any pad. If spa does not reset, shut off the power to the spa and contact dealer for service.

ICE:

Freeze protection has been activated. Contact your dealer for service.

SnA:

A sensor that is plugged into the Sensor "A" jack is not working. The spa turns off. Contact your dealer for service.

Snb:

A sensor that is plugged into the Sensor "B" jack is not working. The spa turns off. Contact your dealer for service.

SnS:

Sensors are out of balance. If this is alternating with the temperature, it may just be a temporary condition. If the display show only this message (periodically blinking), the spa is shut down. Contact dealer for service.

troubleshooting

NOTE: If power is shut off or a power outage occurs the 240V system has a battery backup. All user settings are retained.

HFL:

A substantial difference between the temperature sensors was detected. This could indicate a flow problem. Check water level in spa. Refill if necessary. If the water level is okay, make sure the pumps have been primed. If problem persists, contact your authorized dealer.

LF:

Persistent low flow problems. (Displays on the fifth occurrence of the HFL message within 24 hours.) Heater is shut down, but other spa functions continue to run normally. Follow active required for HFL message. Heating capacity of the spa will not reset automatically. You may press any pad to reset.

dr:

Inadequate water detected in heater. Check water level in spa. Refill if necessary. If the water level is okay, make sure the pumps have been primed. Press any pad to reset

drY:

Inadequate water detected in heater. (Displays on third occurrence of dr message.) Spa is shut down. Follow action required for "dr" message. Spa will not automatically reset; you may press any pad to reset.

Pr:

When your spa is first actuated, it will go into Priming mode. It will last for up to four minutes and then the spa will begin to heat and maintain the water temperature in the Standard mode.

-- F; -- C:

Temperature unknown. After the pump has been running for two minutes, the temperature will display.

-- -:

The temperature is not current. The spa is in Economy or Sleep mode. The pump may have been off for hours. If you wish to see the current spa temperature, either switch to Standard mode or turn Jets 1 on for at least two minutes.

troubleshooting

SbY:

Standby mode has been activated by pressing a pad combination on the user panel. Press any pad to leave Standby Mode and return to normal operation.

Additional Diagnostics for Epic, Destiny and Reward models:

rtC: Hardware failure. Contact dealer.

PSt: Hardware failure. Contact dealer.

CrC: Firmware install problem. Contact dealer.

CFE: Configuration error, spa cannot start up. Contact dealer.

GFI: Spa could not trip GFCI. Contact dealer, continued operation could be unsafe.

StU: A pump appears to be stuck on, causing the water temperature to creep up, possibly to hazardous levels. **POWER DOWN SPA IMMEDIATELY. DO NOT ENTER THE WATER.** Contact dealer.

HOT: A pump appears to have been stuck on the last time spa was powered. **POWER DOWN SPA IMMEDIATELY. DO NOT ENTER THE WATER.** Contact dealer.

NOTE: If power is shut off or a power outage occurs the 240V system has a battery backup. All user settings are retained.

MAINTENANCE REMINDERS:

The following reminders will be shown on the LED lights indicating it is time for maintenance. Reminder messages will also be displayed in the LCD window. Reset the reminders by pressing the Temp Up, Temp Down, or Settings pad.

- Check Bromine: LED will illuminate every 21 days. rSA will be displayed in the LCD window.
- Clean Filter: LED will illuminate every 30 days. rCL will be displayed in the LCD window.
- Change Water: LED will illuminate every 90 days. rCH will be displayed in the LCD window.
- Change Minerals: LED will illuminate every 90 days. rCA will be displayed in the LCD window.

SPACARE™ START-UP KIT

Because we want you to enjoy your spa right away – every Marquis spa includes a start-up kit featuring the Spa Frog® system. The instructions guide you through the initial elements of spa water care. After the initial start-up, your dealer can provide everything you need for ongoing care and familiarize you with specialty products you may need for the specific water conditions in your area.

To ensure the most enjoyment possible from your spa, we have compiled this easy to follow guide. Keep this guide by the spa for a day-to-day reference of Marquis spa care.

Water Treatment

This includes a step-by-step water treatment regimen to familiarize you with the products that make Marquis spa water care a breeze.

Maintenance

Includes an easy to follow program to care for all of the spa components. Specific product recommendations included in this section may extend the life of your spa and remove the guesswork.

IMPORTANT CHEMICAL SAFETY PROCEDURES

1. Always keep chemicals out of reach of children.
2. Read product labels carefully prior to use.
3. When dissolving, always add chemicals to water, do not add water to chemicals. Some dry chemicals should be dissolved prior to adding them to the spa. Using a clean container, dip some water from the spa. Mix until dissolved, then add to circulating water.
4. **CAUTION:** Do not mix chemicals together. Add them separately to the spa water.
5. All chemical products should be stored in a cool, dry, well-ventilated area where the average temperature does not exceed 90°F (32°C). Keep storage area clean of debris such as rags, newspaper, and combustible materials.
6. Keep chemicals away from open flame or other heat source. Do not smoke near chemicals. If a dry chlorine chemical fire should occur, use water only. Do not use a dry chemical fire extinguisher to attempt to put out the fire.
7. When adding chemicals, always keep the water circulating in the spa with jets in a downward circular pattern for better chemical distribution. Add chemicals to the spa water one at a time. Allow several minutes between any new chemical additions using the jet action to evenly distribute throughout the spa.
8. After adding chemicals, wait the amount of time recommended on the chemical container before retesting your water for an accurate reading. Retest your spa water before using.
9. If you have any questions or concerns about the correct procedures for handling chemicals, please contact your authorized spa dealer or Marquis Corp.

marquis care and enjoyment guide

WATER CARE

There are three things necessary for clean safe water:

1. CIRCULATE: Water has to be circulated regularly; it can not be stagnant.
2. FILTER: Water has to be filtered to remove particulate and debris.
3. SANITIZE: Water has to be sanitized to kill organisms like algae, bacteria and virus.

The control system in your Marquis spa will automatically circulate and filter. (See SPA CONTROL OPERATION, ConstantClean™ and SmartClean™ sections.) The sanitation requires minimal effort if done consistently and properly.

To sanitize spa water, three things are required:

1. BALANCE: The water must be balanced so the sanitizer can work and spa equipment is protected.
2. SHOCK: Shock to oxidize organics and maximize sanitizer efficiency.
3. SANITIZE: Maintain a proper level of sanitizer at all times.



All Marquis Spas are equipped with our exclusive Marquis Ozonator.

UNDERSTANDING WATER BALANCE

Water balance is the interrelation of factors that determine the quality of the spa water. The effectiveness of chemicals and other additives are dependent on all these factors working together or “in balance”. The primary elements to water balance are the calcium hardness, total alkalinity and pH.

It's important to understand a spa is not just a “small swimming pool” and the care of a spa should be handled differently. Spa water is kept at a temperature of up to 104°F (40°C) but pool chemicals are designed for cool water. Plus the ratio of people per gallon in a spa is much higher than in a pool – four people in a spa is the equivalent of having 200 people in a typical backyard pool. This increased “bather load” increases the residue from soaps, perfumes, body oils, cosmetics, and other contaminants. Always use water treatment products recommended for use in a Marquis spa.

pH Balance

Keeping the pH balanced is the most critical component of water balance. Calcium hardness

marquis care and enjoyment guide

and total alkalinity act as buffers to stabilize the pH. When they are properly adjusted, the pH will be stable and easy to maintain. The pH is a measure of the relative acidity and basicity of the water. The ideal pH range is 7.2 - 7.8. When the pH falls below 7.2 the water can become corrosive. Low pH can cause damage to metal in the control system and heater, excessive sanitizer consumption, and skin irritation. A pH above 7.8 can be scale-forming and allow metals or minerals in the water to form deposits and stain spa surfaces.

Alkalinity

Alkalinity acts as a buffer to prevent the pH from changing as other substances are added to the water. Stability of the pH is directly related to the alkalinity. The alkalinity should be between 80 - 140 ppm. Alkalinity below 80 ppm makes it difficult to stabilize the pH. Alkalinity above 140 ppm may increase the pH and cause cloudy water, scaling, and decreased efficiency of the sanitizer.

Note: *Alkalinity & pH Increaser* and *Alkalinity & pH Decreaser* will affect both the pH and alkalinity. Generally, smaller additions will change the pH and have a very minor effect on the alkalinity. Larger additions will also affect the pH, but will have a much greater effect on the alkalinity. (Example: If the pH is very high and the alkalinity is within range, adding a few smaller doses of *pH and alkalinity Decreaser* instead of one large dose will reduce the pH with little effect on the alkalinity.)

Calcium Hardness

Do not use soft water in your spa. It is critical to have calcium in your water and in most cases tap water is fine. The ideal range of calcium is between 200 - 300 ppm. The calcium hardness is normally adjusted when filling or refilling after draining the spa. High calcium levels can cause scale buildup on spa surfaces and equipment. Your spa can be protected against high calcium by using *Metal & Stain Remover* per the directions on the container. Low calcium levels can cause spa water to become highly corrosive and damaging to the equipment components and plumbing. To raise calcium levels, use *Calcium Hardness Increaser*. Most authorized dealers can test the calcium hardness of your water.

marquis care and enjoyment guide

BALANCE

When initially filling or refilling your spa follow these steps to achieve proper water balance.

IMPORTANT! Always follow instructions on the chemical container when adding chemicals.

1. Test the spa water using a test strip or test kit. Determine the pH and alkalinity of the water.
2. If adjustments are needed for the pH and/or alkalinity, always balance the alkalinity before balancing the pH. The product(s) you should use to adjust pH and/ or alkalinity are *pH & Alkalinity Up* or *pH & Alkalinity Down*. Make any additions per the directions on the bottle and then test and repeat if necessary until all readings are in the desired range.
3. Increase the calcium hardness if necessary.

SHOCK

Initial Treatment

Shock the spa using granular *Chlorine Sanitizer* or non-chlorine *Spa Shock*. Add directly to the spa per the instructions on the container. For the initial treatment, *Chlorine Sanitizer* is preferred as it will also establish a residual of sanitizer.

Maintenance Treatment

Once bacteria and other wastes are neutralized by the sanitizer, they stay in the water unless oxidized or shocked. Often called chloramines or bromamines, they create dull, cloudy water and can cause odor and eye or skin irritation. Shock treatment rids your spa of these wastes for clear, sparkling water. Shocking with non-chlorine *Spa Shock* or granular *Chlorine Sanitizer* is recommended once a week or whenever the water appears dull or cloudy or has a strong odor. Non-chlorine *Spa Shock* allows use of the spa 15 minutes after shock treatment.

NOTE: A strong bromine or chlorine odor typically indicates the spa needs to be shocked – not that there is too much bromine or chlorine in the water. A properly balanced spa that is shocked regularly will not have an odor.

SANITIZE

ConstantClean™ System

The ConstantClean system utilizes a combination of sanitizers to increase water quality and significantly decrease maintenance. The combination of a *Spa Frog® Mineral Cartridge** and the factory installed ozonator greatly reduce the amount of sanitizer required. Instead of the normal 3 - 5 ppm of bromine, you now only need to maintain 1 - 2 ppm of bromine.

* The Spa Frog® sanitation system is not available in some international markets. However, the ozone system is standard on all spa models in all countries. Please see your dealer for recommended alternate treatment method if Spa Frog® is not available.

marquis care and enjoyment guide

Setting
Window >



SPA FROG® SANITATION SYSTEM*

After shocking the spa water with *Chlorine Sanitizer* granules or non-chlorine *Spa Shock*, bring the spa water to operating temperature. Then install the Spa Frog® cartridges.

ADJUST THE SPA FROG® MINERAL CARTRIDGE*

Remove the protective cellophane wrap from the cartridge. While holding the bottom of the cartridge, turn the top until the number six appears in the setting window.

NOTE: This cartridge should be replaced every three to four months. You will still feel the “spent” minerals inside, but they are no longer effective and the cartridge needs to be replaced. It is recommended to drain and refill the spa at the same time you replace the mineral cartridge.



Spa Frog cap

ADJUST THE SPA FROG® BROMINE CARTRIDGE*

Remove the protective cellophane wrap from the cartridge. Finding the right setting for the bromine cartridge will require monitoring your usage for the first few weeks. Begin with an initial setting based on the chart below and monitor bromine levels daily for the first week or so, adjusting the cartridge by one setting per day until a 1 - 2 ppm level has been achieved. To adjust cartridge, remove from system and turn to the next highest setting if the bromine level is low, or the next lower setting if the bromine level is high. The bromine cartridge needs to be replaced when empty between two and four weeks. Always maintain 1 - 2 ppm of bromine.

Suggested *Initial Spa Frog® Bromine Cartridge Settings*

Suggested Initial Bromine Cartridge Settings

Daily filter time	Spa Gallons		
	250-300	300-400	400-500
One hour	2	3	4
Two hours	2	2	3
Four hours	1	2	2



Install cartridges in the holder.

INSTALL THE CARTRIDGES

Locate and remove the Spa Frog® cap on the top lip of the spa. Push down and turn the holder counterclockwise to unlock. Lift holder out. Snap the *Spa Frog® mineral cartridge* into the area of the holder marked “MINERALS” (top portion), making sure to line up the indentation near the top of the cartridge with the raised line on the holder. Then snap the *Spa Frog® bromine cartridge* into the area of the holder marked “BROMINE”. Be sure to line up the indentation on the cartridge with the raised line on the holder. After cartridges are snapped in, return the holder, push down, and then turn clockwise to lock into place. Replace the cap.

CAUTION: Hand tighten only; avoid over tightening; avoid bending the holder to help prevent damage to the holder.

REMOVE THE CARTRIDGES

Reverse above procedures to remove cartridges.

*The Spa Frog® sanitation system is not available in some international markets. See your dealer for recommended alternate water treatment method.

spa care and enjoyment guide

WATER CARE REGIMEN

SpaCare™ products are classified by easy to follow usage guidelines. The information below indicates whether the product should be used daily, weekly, monthly, when filling, or as needed – if special water conditions arise.

DAILY

Sanitizer

Maintain 1 - 2 ppm of bromine at all times.

WEEKLY

Shock Treatment

Sanitizer combines with bacteria and neutralizes it on contact. However, the used sanitizer/bacteria particle is still present in the spa water. Used sanitizer in the water emits an odor and causes cloudy water. To oxidize, or rid the spa of this used sanitizer, you must shock the spa once a week.

AS NEEDED PRODUCTS

pH & Alkalinity Up

pH & Alkalinity Down

These two products work to raise or lower the pH and alkalinity in the spa. They are only needed if the test strip indicates the levels are not in the ideal ranges.

Water Clarifier

Microscopic particles can pass through the spa filter and create cloudy water. *Water Clarifier* combines these microscopic particles into larger particles that can be trapped in the filter to clear cloudy water.

Spa Defoamer

If foam appears in your spa, the action of the jets will keep it from dissipating. The use of *Spa Defoamer* instantly rids your spa water of foam.

Metal and Stain Remover

Metal and Stain Remover will remove metals such as iron and copper from spa water. Used on a weekly basis, it will protect the spa from possible scaling caused by high levels of calcium.

marquis care and enjoyment guide

TROUBLESHOOTING GUIDE

P: Problem

S: Solution

Cloudy Water

P: Inadequate filtration or dirty filter.

S: Ensure that the filter is securely installed. Clean or replace filter. Increase the length of clean up and/or filter cycles.

P: Water is not balanced.

S: Test water and adjust pH, alkalinity, and sanitizer as needed. Shock to oxidize and destroy organics in the water.

P: Unfiltered particles or chemically saturated.

S: Use *Water Clarifier* to combine particles.

P: High total dissolved solids

S: Drain, clean, and refill the spa.

Chemical Odor

P: Too many chloramines/bromamines in the water.

S: Treat water with *Spa Shock* then adjust sanitizer level as necessary.

P: Dull looking water, difficult to manage. High total dissolved solids (TDS) may be the cause.

S: Drain and refill with fresh water.

Musty Odor

P: Not enough sanitizer in water – bacteria or algae in water.

S: Add sanitizer as necessary and shock. Re-adjust sanitizer level if necessary.

Yellow Water

P: Low pH and/or low alkalinity.

S: Test and adjust pH with *pH and Alkalinity Up*. Adjust alkalinity if necessary.

Foaming

P: High concentration of body oils, lotions or soaps, as well as excessive organics.

S: Use *Spa Defoamer* and adjust pH and sanitizer as needed.

Scum Line in Spa

P: Body oils and dirt.

S: Use *Glove Sponge* to clean the spa. Test and adjust the sanitizer and pH if necessary. Increase the clean up cycle.

marquis care and enjoyment guide

No Sanitizer Reading

P: Sanitizer level is too low.

S: Shock and/or adjust *Spa Frog® bromine cartridge* until the sanitizer registers in the recommended range.

P: Test strip remains “white” even after sanitizer has been added.

S: Sanitizer level could be extremely high. It can bleach the reagents on the test strip and give a false reading.

Remove spa cover and activate jets and air control. Allow jets to run for 30 minutes. Test water to see if desired level has been reached. Adjust *Spa Frog® bromine cartridge* to reduce bromine level.

High Sanitizer Reading

P: Too much chlorine or bromine added or dispensed into the spa.

S: Remove spa cover and activate jets and air control. Allow jets to run for 30 minutes. Test water to see if desired level has been reached. Adjust *Spa Frog® bromine cartridge* to reduce bromine level.

Eye or Skin Irritation

P: Contaminants or excessive amount of chloramines/bromamines in water.

S: Treat water with *Spa Shock*. Adjust sanitizer level.

P: pH is low.

S: Adjust as needed.

Corrosion of Metal

P: Low pH.

S: Adjust pH with *pH and Alkalinity Up*.

Green Water/Algae

P: Low sanitizer level or high pH.

S: Adjust pH, shock and/or adjust *Spa Frog® bromine cartridge* as necessary.

Erratic pH

P: Alkalinity and/or calcium hardness are too low causing pH “bounce”.

S: Test and adjust alkalinity and/or calcium hardness to bring them into the ideal range.

glossary

TERMS AND PRODUCT DEFINITIONS

Alkalinity – The concentration of alkaline materials in the water. Proper alkalinity is directly related to the stability of the pH. High alkalinity makes the pH impossible to adjust. Low alkalinity makes the pH unstable and difficult to maintain.

Bacteria – The germs that contaminate your spa water.

Balanced Water – The correct balance of alkalinity, pH and sanitizer.

Bromamines – Created when bromine combines with bacteria.

Bromine – A bromine based sanitizer.

Calcium Hardness – The amount of dissolved calcium in the spa water. This should be approximately 200 - 400 ppm. High levels of calcium can cause cloudy water and scaling. Low levels of calcium can cause permanent damage to the equipment.

Calcium Hardness Increase – Increases calcium levels in your water to avoid damage to the equipment seals and metal in your spa. Especially needed if using soft water.

Chloramines – Created when chlorine combines with bacteria.

Chlorine Demand – The amount of chlorine that must be added to the spa to destroy existing bacteria and algae and to establish a chlorine residual.

Chlorine Residual or Free Chlorine – The available chlorine left in the spa water to destroy harmful organisms after the chlorine demand has been met. The correct amount of free available chlorine is 3 - 5 ppm (0.5 ppm when used in conjunction with an ozonator).

glossary

Chlorine Sanitizer – A fast dissolving, granular product used for sanitizing the spa water. Dispensed manually into the water as needed.

Water Clarifier – Restores clarity to dull water by combining unfilterable microscopic particles into larger particles that can be effectively filtered.

Filter Cleaner – Keeps your filter operating efficiently by removing grease, grime, and other buildup that can impair the filtration process.

Spa Defoamer – Instantly rids the spa of undesired foam.

Metal and Stain Remover – Rids spa of minerals and metals that can interfere with filtration, affect sanitizer efficiency, and stain spa surfaces. Necessary if you have well water or water with a high metal/mineral concentration.

Ozonator – A device that produces bacteria killing ozone gas to assist in water sanitation. The use of an ozonator significantly reduces the amount of chemical product needed to maintain clean, fresh water.

pH – The pH level is the measure of acidity and alkalinity of the water. It is measured on a scale of 0 - 14. The ideal pH level is 7.2 - 7.6. When the pH level falls below 7.2, damage to metal in the equipment can occur. A pH level above 7.8 can reduce the effectiveness of the sanitizer, and cause cloudiness and scale formation. Improper pH levels can be irritating to the eyes.

pH and Alkalinity Down – Decreases the pH and alkalinity level of the water in your spa.

pH and Alkalinity Up – Increases the pH and alkalinity level of the water in your spa.

glossary

ppm – Parts per million. The measurement of chemical concentration in the water.

Sanitizer – Any product or device that kills bacteria living in the water.

Shock – Also known as shocking or oxidation. Shocking oxidizes used up chloramines and bromamines in the water that cause odor and irritation.

Shock Treatment – Rids the water of chloramines or bromamines through oxidation (shocking).

Water Balance – The interrelation of factors which determine the quality of spa water. The effectiveness of chemicals and additives is dependent on other chemicals or water characteristics present in the spa water. Chemicals, minerals, or other substances vary depending on your municipal water system, ground well, or other water supply.

Water Test Strip – An accurate dip test that measures the spa water for sanitizer, pH, and alkalinity levels.

maintenance

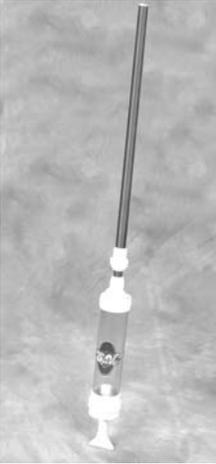
WEEKLY MAINTENANCE

1. Removing Debris

Remove any debris and leaves from the Vortex skimmers and suction guard(s) on the inside of the spa. Blocked intakes can impede the flow of water through the jetting system.

2. Water Level

Replenish the water level if necessary so that it is approximately two-thirds up the Vortex skimmer opening. (See STARTING YOUR SPA.)



A Spa Vac suction
matters from deep in
the footwell.



Water level should be
two-thirds up the
Vortex skimmer
opening.

maintenance

MONTHLY MAINTENANCE

1. Filter Care

We cannot stress enough the importance of a clean filter for proper water filtration. Dirty filters can restrict water flow, cause hazy water, and prevent your chemicals from working properly. Many water treatment products clear or clarify the water by clumping microscopic particles and minerals together so that these larger particles can be effectively trapped in the filter. A filter clogged with debris and calcium deposits does not trap particles properly.

The Maintenance Reminder on the spa-side Control Panel indicates a CL every 30 days to remind you to clean your filter.

Removing the Filter

Grasp the edge of the Waterfall, pull up firmly, but gently, to remove it.

Turn the filter cartridge counterclockwise to unscrew it from its base. Lift out the filter cartridge.

Use a hose to clean the filter cartridge and Filter Cleaner to soak the filters (you will need to flip the filter after the designated time to completely clean the entire length).

NOTE: Keep an extra set of filters on hand so you always have a clean set ready for immediate spa enjoyment. Remember to replace the filter cartridges at least once a year.

Reinstalling the Filter

Repeat the steps above in reverse. Do not over-tighten the filter as it may cause the threads on the bottom to strip and fail to hold the filter in place. When replacing the Waterfall, center the top over the raised filter ring and press down firmly until the top snaps into place. (See INSTALLATION INSTRUCTIONS, Filter Cartridges.)



Turn filter cartridge counterclockwise to unscrew.

maintenance

EVERY THREE TO FOUR MONTHS

Draining and Filling the Spa

The average spa needs to be drained every three to four months. After months of continually adding chemicals to the water and introducing body oils and lotions, the water can be difficult to manage and chemicals are not as effective as usual. You may also notice excessive foaming. More frequent draining may be required depending on use.

1. Leakage Detection

Open the equipment door and check for signs of water leakage around the pump(s). Pump seals wear out over time, especially with improper water chemistry. Early detection of pump seal failure can significantly reduce repair costs.

2. Ozonator Operation

The ozonator functions whenever the system is running on filter or cleanup cycles. Check to see if the bulb is lighted. (See SPA CONTROL OPERATION.) Ozonator end caps glow if functioning properly. If not, the bulb has burned out. Contact dealer for service.

3. Draining the Spa Using the External Drain and Fill Connection

- A. Turn off the power to the spa.
- B. Remove the hose bib plug from the external drain and fill connection and attach a hose.
- C. Open the drain valve in the equipment compartment. (See EQUIPMENT DIAGRAM.) Gravity causes the water to drain out of the hose.
- D. When the spa is empty, close the drain valve and remove the hose. Reinstall the hose bib plug.

NOTE: Keep the drain valve closed at all times except when draining the spa (do not rely on the cap to stop the flow of water). Not doing so could result in damage to the drain valve due to freezing water.

Replacing the Spa Frog Mineral Cartridge

This cartridge should be replaced every four months. You may still feel the “spent” minerals inside, but they are no longer effective and need to be replaced. See ADJUSTING THE SPA FROG® CARTRIDGES, Blue Mineral Cartridge.



Check the end caps of the ozonator for a green glow.



Remove hose bib plug from external drain and fill connection.



Open drain valve in equipment compartment.



Replace blue mineral cartridge every four months.

maintenance

4. Clean the DuraShell® Interior

Once the spa is drained, clean the DuraShell interior thoroughly – especially at the water line. We suggest the *Glove Sponge* to clean without scratching.

Clorox bleach (diluted) is the only approved cleaning agent for DuraShell – any other products should be avoided.

NOTE: Due to the high-gloss, fine finish of the acrylics, imperfections in the surface texture may occur. These in no way compromise the integrity of the spa shell.

NOTE: Do not leave an empty spa uncovered. Direct sunlight on the spa surface can cause severe damage or blemishing and can result in the voiding of any surface warranties.

5. Refill the Spa

Fill the spa with fresh water from a garden hose and balance the water as described in the Water Treatment section.

The use of a *Fill Filter* is recommended when filling especially in areas of high mineral content in the water. Attach to the end of a garden hose to filter out any grit and sediment that could accumulate in the spa and potentially scratch the spa surface.

maintenance

AS NEEDED MAINTENANCE

1. Cover Care

It is recommended that you use *Cover Cleaner* to keep the DuraCover™ clean and conditioned. Proper care of the cover increases the life and keeps it looking great in even the harshest conditions. **NOTE:** Do not use regular household products or products that contain silicone, alcohol, steel wool, or bleach.

2. DuraWood Care

Clean the exterior of the spa with a mild soap and water solution. Cleaners that contain alcohol or high levels of solvents, along with Acetone, Nitrobenzene, and Cyclohexanol, can dissolve and discolor the DuraWood exterior.

3. Excess Debris

Grit and debris tracked into the spa should be removed with a spa vacuum.

4. Water Line

To avoid buildup of oils and lotions at the water line, clean the interior when needed. We suggest the Glove Sponge to clean without scratching.

NOTE: Do not use the same brush or sponge to clean the exterior of the spa and the interior of the spa. Soap and other product residue used on the outside of the spa can cause foaming of the spa water and scratches to the spa surface if used on the inside of the spa.

5. Light Bulb Replacement:

- A. Turn off the power to the spa.
- B. Remove the equipment area door to find the light access. (See EQUIPMENT DIAGRAM.)
- C. Remove the lamp socket from the back of the light assembly by turning counterclockwise and pulling at the same time.
- D. Gently pull the bulb out of the lamp socket and replace it with a **6 watt bulb only (GE #918)** available from your spa dealer.
- E. Install the lamp socket back into the light assembly and replace door.



Remove lamp socket from back of light assembly.

maintenance

SUSPENDED USE OR WINTERIZING THE SPA

Your spa was designed for year-round use and many people find the combination of hot water, therapy jets, and cool winter temperatures to be especially soothing. However, if you decide to discontinue the use of your spa for any extended period of time, we suggest you follow the steps below.

NOTE: During long periods of inactivity, damage can occur to equipment from condensation within the equipment compartment.

1. Turn off the power to the spa.
2. Drain the spa. (See DRAINING AND REFILLING THE SPA.)
3. Remove all residual water from the seating and footwell. If necessary, bail out the remaining water then dry the spa with towels. A wet/dry vacuum is recommended for best results.
4. Using the wet/dry vacuum, place vacuum nozzle over each jet nozzle to remove water from plumbing lines, starting with the highest jet and finishing with the lowest jet.

NOTE: The spa is equipped with a Tri-Zone control which is used to divert water between different jet zones. The valve must be “open” to the particular jets you are vacuuming.

5. Unscrew the pump plug(s) from the pump(s) or disconnect the freeze protection line. (See STARTING YOUR SPA.)
6. Again, using the wet/dry vacuum, place nozzle over the exposed pump opening(s) to remove excess water. The pump(s) should be removed from the spa and stored in a climate-controlled room.
7. Clean the spa interior.
8. Clean the filter cartridges.
9. Reinstall the DuraCover™ and lock in place.

NOTE: Direct sunlight on the spa surface can cause severe damage or blemishing and can result in the voiding of any surface warranties.



Tri-Zone control must be “open” to the jets you are vacuuming, in this case, the upper and mid back jets.



SpaBoutique™

A collection of unique items to delight your senses, free your time, and make your life easier.

SpaCare gives you maintenance products to ease spa care – inside, outside, and especially the water.

SpaTherapy surrounds your senses with aromas, visions, sounds and feel-good products to bring you and your environment to life.

SpaStyle brings convenience items to enhance your lifestyle, while soaking in the spa or relaxing on the deck.

SpaBoutique offers a full range of spa and backyard accessories, including SpaCare™ products, Spa Frog® products, replacement filter cartridges, cover lifters, steps, and more. See your authorized dealer for a complete catalog of items.