

SUNDANCE® SWIM SPA OWNER'S MANUAL

Sundance® Swim Spas



Contents subject to change without notice

2026

| Models Covered | Domestic Model Codes | Export Model Codes |
|----------------------------|-----------------------------|---------------------------|
| Sundance® 12 Splash | SS12SP | SSE12SP |
| Sundance® 13 Stream | SS13ST | SSE13ST |
| Sundance® 17 Stream | SS17ST | SSE17ST |
| Sundance® 17 Surf | SS17SU | SSE17SU |

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s license exempt RSS(s). Operation is subject to the following conditions:

- 1. This device may not cause interference; and**
- 2. This device must accept any interference, including interference that may cause undesired operation of the device.**

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NOTE: Product specifications, warnings and labels are subject to change without notice. This user's manual should be used as a guide only. For further information, please contact your independent Sundance® dealer.

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SAVE THESE INSTRUCTIONS

IMPORTANT SAVE THESE INSTRUCTIONS

Your physiological response to hot water is subjective and depends on your age, health, and medical history. If you don't know your tolerance to hot water, or if you get a headache, or become dizzy or nauseous when using your hot tub, get out and cool off immediately.



WARNING

1. CHILDREN SHOULD NOT USE SPAS OR HOT TUBS WITHOUT ADULT SUPERVISION.
2. DO NOT USE SPAS OR HOT TUBS UNLESS ALL SUCTION GUARDS ARE INSTALLED TO PREVENT BODY AND HAIR ENTRAPMENT.
3. PEOPLE USING MEDICATIONS AND/OR HAVING ANY ADVERSE MEDICAL HISTORY SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB.
4. PEOPLE WITH INFECTIOUS DISEASES SHOULD NOT USE A SPA OR HOT TUB.
5. TO AVOID INJURY, EXERCISE CARE WHEN ENTERING OR EXITING THE SPA OR HOT TUB.
6. DO NOT USE DRUGS OR ALCOHOL BEFORE OR DURING THE USE OF A SPA OR HOT TUB, TO AVOID UNCONSCIOUSNESS AND POSSIBLE DROWNING.
7. PREGNANT OR POSSIBLE PREGNANT WOMEN SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB.
8. WATER TEMPERATURE IN EXCESS OF 38°C (100°F) MAY BE INJURIOUS TO YOUR HEALTH.
9. BEFORE ENTERING THE SPA OR HOT TUB, MEASURE THE WATER TEMPERATURE WITH AN ACCURATE THERMOMETER.
10. DO NOT USE A SPA OR A HOT TUB IMMEDIATELY FOLLOWING STRENUOUS EXERCISE.
11. PROLONGED IMMERSION IN A SPA OR HOT TUB MAY BE INJURIOUS TO YOUR HEALTH.
12. DO NOT PERMIT OR USE ELECTRIC APPLIANCES (SUCH AS LIGHT, TELEPHONE, RADIO OR TELEVISION) WITHIN 1.5M (5FT) OF THIS SPA OR HOT TUB.
13. CHILDREN SHOULD NOT ENTER A HOT TUB WHERE THE WATER TEMPERATURE EXCEEDS BODY TEMPERATURE (37°C / 98.6°F).
14. DO NOT ALLOW CHILDREN TO SUBMERGE THEIR HEAD UNDER WATER.
15. NEVER OPERATE THE HOT TUB PUMP AT HIGH SPEED WITHOUT HAVING ALL SUCTION AND RETURN LINES OPEN.
16. ALWAYS KEEP THE HARDCOVER INSTALLED AND LOCKED WHEN THE HOT TUB IS NOT IN USE.
17. TEST THE GFCI (GROUND FAULT CIRCUIT INTERRUPTER) MONTHLY.
18. POST EMERGENCY PHONE NUMBERS FOR POLICE, FIRE DEPARTMENT, AND AMBULANCE AT THE NEAREST PHONE.
19. TO REDUCE THE RISK OF INJURY
 - THE WATER IN A SPA SHOULD NEVER EXCEED 40°C (104°F). WATER TEMPERATURES BETWEEN 38°C (100°F) AND 40°C (104°F) ARE CONSIDERED SAFE FOR A HEALTHY ADULT. LOWER WATER TEMPERATURES ARE RECOMMENDED FOR YOUNG CHILDREN AND WHEN SPA USE EXCEEDS 10 MINUTES.
 - 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 WATER TEMPERATURES TO 38°C (100°F).
 - BEFORE ENTERING A SPA, THE USER SHALL MEASURE THE WATER TEMPERATURE SINCE THE TOLERANCE FOR WATER TEMPERATURE-REGULATING DEVICES VARIES.
 - THE USE OF ALCOHOL, DRUGS, OR MEDICATION BEFORE OR DURING SPA USE MAY LEAD TO UNCONSCIOUSNESS, WITH THE POSSIBILITY OF DROWNING.
 - OBESE PERSONS AND PERSONS WITH A HISTORY OF HEART DISEASE, LOW OR HIGH BLOOD PRESSURE, CIRCULATORY SYSTEM PROBLEMS OR DIABETES SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA.
 - PERSONS USING MEDICATION SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA SINCE SOME MEDICATION MAY INDUCE DROWSINESS WHILE OTHER MEDICATION MAY EFFECT HEART RATE, BLOOD PRESSURE AND CIRCULATION.

SAVE THESE INSTRUCTIONS

IMPORTANT SAVE THESE INSTRUCTIONS

Your physiological response to hot water is subjective and depends on your age, health, and medical history. If you don't know your tolerance to hot water, or if you get a headache, or become dizzy or nauseous when using your hot tub, get out and cool off immediately.



CAUTION

1. MAINTAIN WATER CHEMISTRY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.



DANGER

1. RISK OF ACCIDENTAL DROWNING. EXTREME CAUTION MUST BE EXERCISED TO PREVENT UNAUTHORIZED ACCESS BY CHILDREN. TO AVOID ACCIDENTS, ENSURE THAT CHILDREN CAN'T USE THE SPA UNLESS THEY ARE SUPERVISED AT ALL TIMES.
2. RISK OF INJURY. THE SUCTION FITTINGS IN THIS SPA ARE SIZED TO MATCH THE SPECIFIC WATER FLOW CREATED BY THE PUMP. SHOULD THE NEED ARISE TO REPLACE THE SUCTION FITTINGS OR THE PUMP, BE SURE THAT THE FLOW RATES ARE COMPATIBLE. NEVER OPERATE THE SPA IF THE SUCTION FITTINGS ARE BROKEN OR MISSING. NEVER REPLACE A SUCTION FITTING WITH ONE RATED LESS THAN THE FLOW RATE MARKED ON THE ORIGINAL SUCTION FITTING.
3. RISK OF ELECTRIC SHOCK. INSTALL AT LEAST 1.5M (5FT) FROM ALL METAL SURFACES. AS AN ALTERNATIVE, A SPA MAY BE INSTALLED WITHIN 1.5M (5FT) OF METAL SURFACES IF EACH METAL SURFACE IS PERMANENTLY CONNECTED BY A MINIMUM 8 AWG (8.4 mm²) SOLID COPPER CONDUCTOR TO THE WIRE CONNECTOR ON THE TERMINAL BOX THAT IS PROVIDED FOR THIS PURPOSE.
4. RISK OF ELECTRIC SHOCK. DO NOT PERMIT ANY APPLIANCE, SUCH AS A LIGHT, TELEPHONE, RADIO, OR TELEVISION, WITHIN 1.5M (5FT) OF THE SPA.

HYPERTHERMIA

Since your hot tub can be set to reach temperatures of 40°C (104°F), users should be aware that extended submersion in water that exceeds normal body temperature can lead to hyperthermia.

The causes, symptoms and effects of hyperthermia may be described as follows:

Hyperthermia occurs when the internal temperature of the body reaches several degrees above the normal body temperature of 37°C (98.6°F). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include:

- Unawareness of impending hazard
- Failure to perceive heat
- Failure to recognize the need to exit the hot tub
- Physical inability to exit the hot tub
- Fetal damage in pregnant woman
- Unconsciousness resulting in the danger of drowning

If you sense any of the symptoms of hyperthermia, safely exit the hot tub immediately.

WARNING



THE USE OF ALCOHOL, DRUGS OR MEDICATION CAN SIGNIFICANTLY INCREASE THE RISK OF FATAL HYPERTHERMIA.

**NEVER ALLOW DIVING OR JUMPING
IN YOUR SWIM SPA**

IMPORTANT ELECTRICAL SAFETY INSTRUCTIONS

SAFETY COMES FIRST. WHEN INSTALLING & USING THIS ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS MUST ALWAYS BE FOLLOWED!

1. **READ AND FOLLOW ALL INSTRUCTIONS.**
2. Electrical installation must be completed by a qualified electrician in accordance with all National, Regional and Local Codes and Regulations in effect at the time of installation.
3. Connect only to a dedicated circuit protected by a class 'A' two-pole ground fault circuit interrupter (GFCI)
4. **Use copper conductors only!**
5. The hot tub equipment and all electrical plugs, outlets and lights within 1.5m (5ft) of the unit must be G.F.C.I protected. Consult your electrician or local electrical authority for further details.
6. A green colored terminal or a terminal marked "G", "GR", "Ground", or "Grounding" is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying the equipment.
7. At least two lugs marked "**BONDING LUGS**" are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the hot tub to these terminals with an insulated or bare copper conductor not smaller than No.6 AWG (Canada/Europe) / No.8 AWG (USA).
8. All field installed metal components such as rails, ladders, drains or other similar hardware within 3 m (10 ft) of the hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No.6 AWG.

G.F.C.I./R.C.D. APPLICATION GUIDE FOR SUNDANCE® SWIM SPA SERIES

| | |
|----------------------|-----|
| NORTH AMERICA | |
| Stream Models | 50A |
| Surf Models | 60A |
| EUROPE | |
| Stream Models | 40A |
| Surf Models | 40A |

IMPORTANT NOTE:

- This guide is for standard installations where the wire run is 15 m (50 ft.) or less. For longer wire runs, consult a qualified electrician.

IMPORTANT NOTE:

All Sundance swim spas are specifically designed for portability and movement. Engineered to be freestanding, portable and accessible with no fixed position. These units should be hard wired by an installing electrician to the recommended service box (GFCI) as per local regulations. These swim spas can be easily disconnected when the need arises for movement and relocation.

WIRE SIZE

NORTH AMERICA

- The minimum wire size for systems that require a 40A GFCI is # 8/3 c/w ground (also referred to as # 8 gauge / 4 conductor).
- The minimum wire size for systems that require a 50A GFCI is # 8/3 c/w ground (also referred to as # 8 gauge / 4 conductor).
- The minimum wire size for systems that require a 60A GFCI is # 6/3 c/w ground (also referred to as # 6 gauge / 4 conductor).

NOTE: Please consult your applicable electrical codes related to the size of conductors as they may vary from what is stated above. Take into consideration the length of cable as well and increase as required.

EUROPE

Standards for amperage breakers may vary from country to country in the CE controlled area. Please consult your local installer for advice on breaker level and wire specifications. Some examples are below:

- Breaker of 13A—wire must be 1.5 mm²
- Breaker of 16A—wire must be 2.5 mm²
- Breaker of 20A—wire must be 4.0 mm²
- Breaker of 32A—wire must be 6.0 mm²

NOTE: Please consult your applicable electrical codes related to the size of conductors as they may vary from what is stated above. Take into consideration the length of cable as well and increase as required.

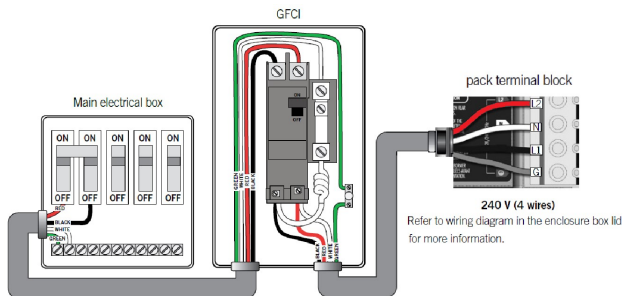
NORTH AMERICA – GFCI INSTALLATION



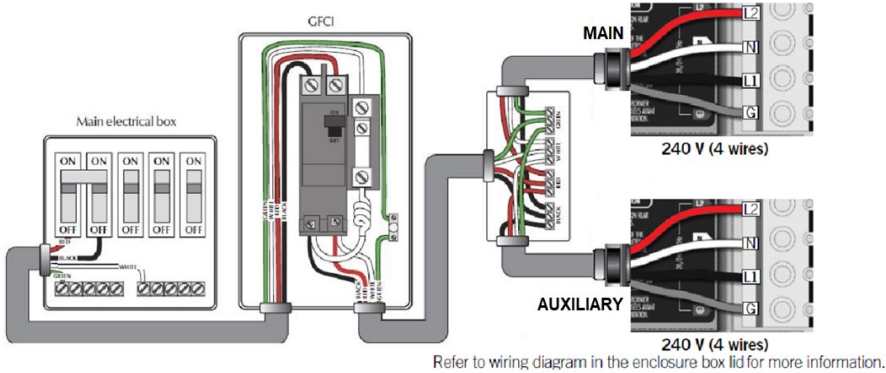
NOTICE

Installation of the GFCI - Circuit Breaker, including ampere sizing and selection of conductor size and type, must be performed by a qualified electrician in accordance with the National Electrical Code, or the Canadian Electrical Code, and all Federal, State/Provincial and local codes and regulations in effect at the time of installation. Sundance® highly recommends the use of a new Siemens GFCI breaker for all of its products. Other GFCI's and older Siemens's GFCI's may have tripping issues.

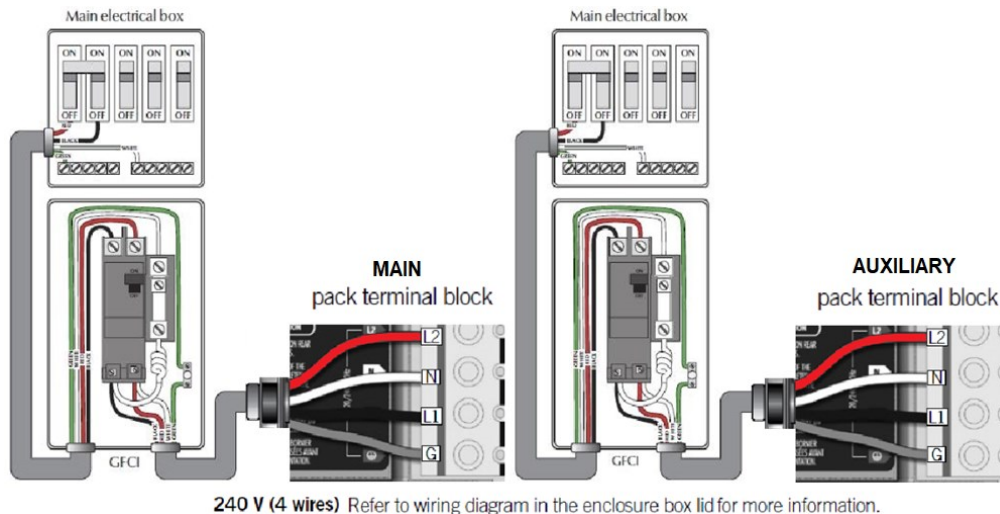
240 VOLT 60Hz SWIMSPA SINGLE GFCI WIRING (MAIN ONLY)



240 VOLT 60 Hz SWIMSPA SINGLE GFCI WIRING MAIN / AUXILIARY HEATER



240 VOLT 60 Hz SWIMSPA DUAL GFCI WIRING MAIN / AUXILIARY HEATER



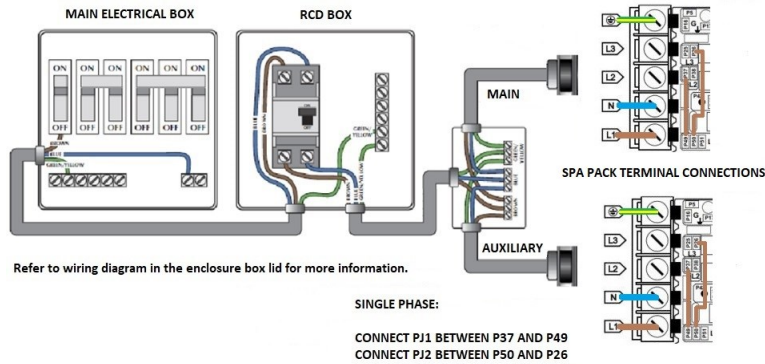
EUROPE – R.C.D. INSTALLATION - TYPICAL



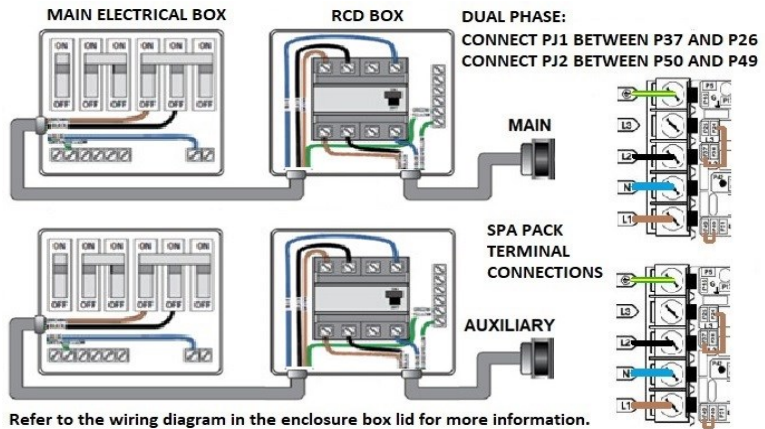
NOTICE

Important Note: Installation of the R.C.D. - Circuit Breaker, including ampere sizing and selection of conductor size and type, must be performed by a qualified electrician in accordance with National, Regional and Local Codes and Regulations in effect at the time of installation.

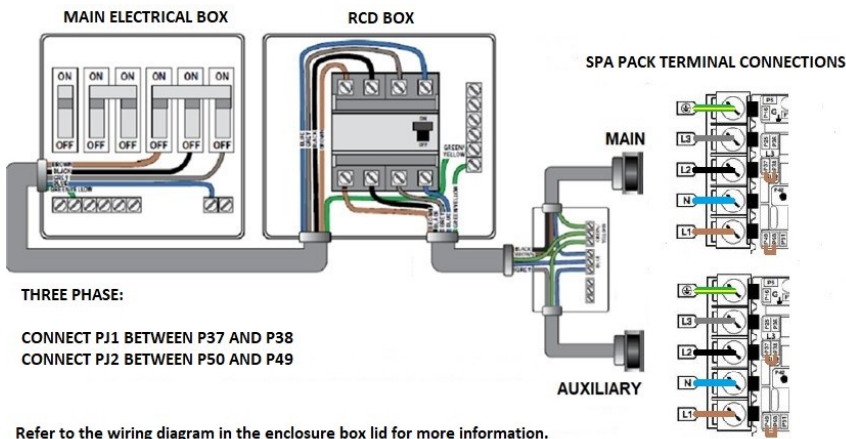
230 VOLT 50 Hz SINGLE PHASE RCD WIRING



230 VOLT 50 Hz DUAL PHASE RCD WIRING



230 VOLT 50 Hz THREE PHASE RCD WIRING



FILLING, CHECKING AND STARTING YOUR SWIM SPA—ALL OTHER SWIMSPAS



PROPER WATER LEVEL

FILLING

- When adding water for the first time, the swim spa should be filled through the skimmer opening (helps to prevent air locks) using a standard garden hose, turning the tap on slowly to prevent damage to the surface by a jerking hose connection.
- Pull up the handles on the intake and return gate valves and clip on the stem locks. (handles are pulled up when valves are open and pushed down when valves are closed).
- Ensure the drain valve is closed.
- Ensure that all jets are open.
- Fill the swim spa to the recommended level as indicated.

CHECKING

Although your swim spa was thoroughly water-tested in the factory, some loosening of fittings can occur during shipping. Before any decking, tiling or carpeting is completed around the installation, fill and operate your hot tub to test for leaks (this ensures easy access and inexpensive correction). Check all union connections and plumbing for minor leaks. In the event of a leak, ensure all union connections and pump plugs are tight and all o-rings/gaskets are in place.

Also check the tightening of the screws and all the electrical connections which could loosen during shipping.

STARTING

Before applying voltage to power-up your swim spa, it is very important that you understand the sequence of events that occur when the system is activated in order that the pump can be primed efficiently and damage to the system can be avoided.

- Turn the main power “on” at your electrical panel.
- Follow the control instructions for your particular model swim spa to put the pump into low speed.

See section **SUNDANCE® CONTROL SYSTEMS**

PUMP PRIMING/RELEASING AN AIR LOCK

- On some systems a message will appear on the display indicating that the system is in **PUMP PRIMING MODE**. This mode will last for 4 to 5 minutes before automatically entering the normal operation mode. See **complete details for your spa in section SUNDANCE® CONTROL SYSTEMS**.

When the pump is located below water level, the water should start circulating immediately. If the motor works but if you do not notice water circulation within the first 15 seconds, the pump may require priming due to trapped air (referred to as an ‘air lock’). To prime (inset 2), open the hose-bib to allow trapped air to escape. Close as soon as the water flow from the jets becomes regular. If the pumps have not primed after 2 minutes, and water is not flowing from the jets, **DO NOT** allow the pumps to continue to run. Turn power off at the main house panel (or GFCI) and try releasing the air again by loosening the union on the discharge side of the pump(s) while the motor is not running. Turn the power back on. If the pump(s) does not prime after 15 seconds, sometimes momentarily turning the pump(s) off and on will help the system to prime (note: do not do this more than 5 times). Repeat if necessary.

- **Important:** Under **NO** circumstances should the pump(s) be allowed to operate without priming beyond 5 minutes, as this may not only cause unwarrantable damage to the pump, it may also cause the control system to go into an overheat condition.

Definition: ‘Priming’ a pump is a term used to describe the process in which air trapped in the plumbing and pump wet end (referred to as an ‘air lock’) is released, allowing the pump to move water efficiently through the plumbing system and to the jets.

RELEASING AIR TRAPPED IN FILTER...

...THROUGH THE
PUMP UNION

RELEASING AN AIR LOCK...



- When the pump starts circulating, it will be necessary to release trapped air in the filter. Carefully loosen the air vent valve counter-clockwise until there is the hissing sound of air escaping. Once there is a steady stream of water, close the vent valve, ensuring that the o-ring does not become pinched.
- Turn the Hydrotherapy pump(s) on and re-check for leaks. The control system will automatically return the pump(s) off after 15 minutes.
- Adjust the hot tub heat control at the topside panel to the desired water temperature.
- Adjust water balance (pH, TA, calcium hardness) to recommended levels and add sanitizer once the water temperature reaches 20°C (68°F).

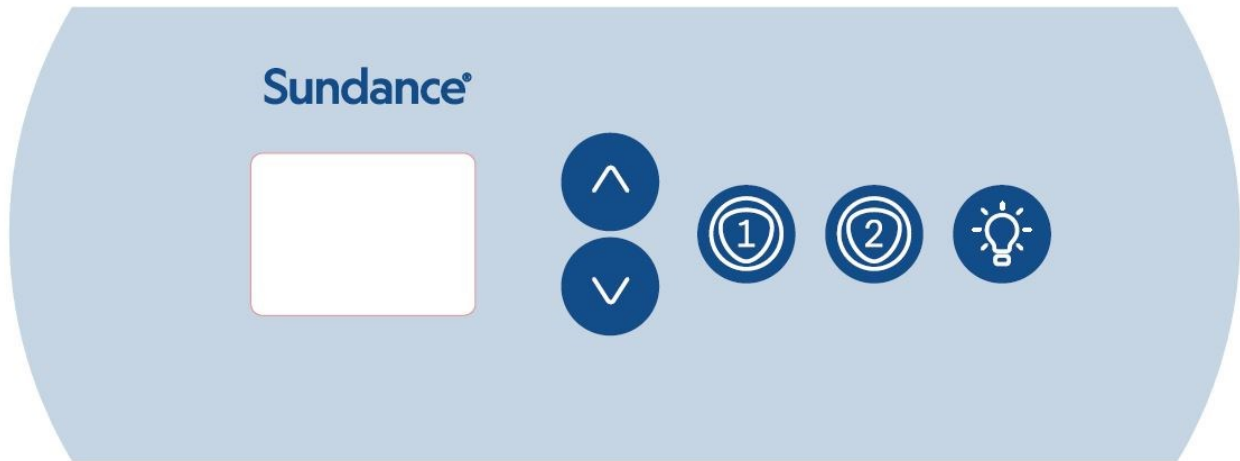
See section WATER BALANCE

- Keep insulated safety hard cover on the hot tub, and the air controls closed during the entire heat up process.

NOTE:

In order to prevent damage to your pillows caused by the gassing effect of the chemicals, we do recommend to remove them when the spa is not in use. By removing them you will extend considerably the life length of your pillows. We do design ours pillows to be removed easily in order to make sure they will not remain in the spa when it's not in use.

Sundance® 12 Splash™ Swim Spa Operation



KEYPAD FUNCTIONS



JET 1 KEY WHICH CONTROLS PUMP 1



TEMP + KEY WHICH CONTROLS THE TEMPERATURE AND SCROLLS THROUGH THE MENUS



JET 2 KEY WHICH CONTROLS PUMP 2



TEMP - KEY WHICH CONTROLS THE TEMPERATURE AND SCROLLS THROUGH



LIGHT KEY WHICH CONTROLS THE LIGHTING AND ACTIVATES THE LOW LEVEL PROGRAMMING

PROGRAMMING



INITIAL START-UP

Before applying voltage to power-up your swim spa, it is very important that you understand the sequence of events that occur when the system is activated in order that the pump(s) can be primed efficiently and damage to the system can be avoided.

PROGRAM MENU

The program menu is accessible by holding down the Light Key for 5 seconds. In the Program Menu the following parameters can be set: clock, filter or purge cycles, economy mode and temperature units. While in the program menu, use the Up and Down keys (Up/ Down Key) to adjust the parameters and the Light key to jump to the next parameter. The changes will be saved after the confirmation of the last parameter only. If there is no action taken for 10 seconds, the system will exit the program menu without saving any changes.

SETTING THE CLOCK TIME

Enter the program menu by holding down the Light Key for 5 seconds. The display will show the current clock setting with the hour flashing. Use the arrow keys to adjust the hour. Press the Light Key to adjust the minutes. Press the light key to jump to the next parameter or to the end of the parameters to save the time.



TEMPERATURE CONTROL FUNCTIONALITY AND ADJUSTMENT



After you exit the programming mode your hot tub will automatically heat to the factory preset default temperature of 38°C (100°F). The temperature shown on the screen is the current water temperature. Use the UP and DOWN buttons to set the desired temperature.

The set point icon will appear at the top of the screen. After 3 seconds without any change to the set temperature value, the keypad will resume the normal display.

STANDBY MODE

Pressing the JET key for 5 seconds will enable the Standby Mode. This mode allows you to stop all outputs including automatic functions such as the filter cycle, heat request and smart winter mode for 30 minutes to perform quick spa maintenance. When active, the display will toggle between the "OFF" message, the clock and water temperature.



PROGRAMMING (continued)

PROGRAMMING THE FILTER / PURGE CYCLES



The filter cycle menu consists of the following parameter: the start time (FS), the duration (Fd), and the frequency (FF).

NOTE: A filter cycle consists of starting all the pumps and blower (if equipped) in high speed for 1 minute (purge step) then the pump associated with the filter cycle will run in low speed for the remaining duration of the filter cycle (clean up step).

SETTING THE FILTER CYCLE



After you have programmed the clock, the next parameter is the filter cycle start time. The display will show FSxx, with "xx" representing the starting hour of the cycle. Use the arrow keys to adjust the hours. Use the Light Key to jump to the next parameter, filter duration (Fd).



The display will show Fdxx, with "xx" representing the duration in hours of the filter cycle. Use the arrow keys to adjust the duration. Use the Light Key to jump to the next parameter, filter frequency (FF).



The display will show FFxx, with "xx" representing the number of cycles per day. Use the arrow keys to adjust the frequency. Use the Light Key to jump to the next parameter, economy mode (EP). This mode allows you to lower the temperature set point of the spa by 20F (11C) during a certain period of the day.



The display will show Epx, with "x" representing the state of the programming (0 = disabled, 1 = enabled). Use the arrow keys to enable or disable the economy mode. Use the light key to jump to the next parameter, economy start time (ES).

When the Economy mode is ON, the display will toggle between the "Eco" message, the time and the water temperature.



The display will show ESxx, with "xx" representing the hour at which the economy mode will become active. Use the arrow keys to adjust the hour. Use the Light Key to jump to the next parameter, economy duration (Ed).

PROGRAMMING (continued)



The display will show Edxx, with “xx” representing the duration in hours of the economy mode. Use the arrow keys to adjust the hour. Use the Light Key to jump to the next parameter, temperature unit.



Water temperature can be displayed in either Fahrenheit (°F) or Celsius (°C). The display will show °F or °C. Use the arrow keys to change the setting. Use the Light Key to save all the parameters.

SMART WINTER MODE

Smart Winter Mode protects your system from the cold by turning the pumps on several times a day to prevent water from freezing in the pipes. The Smart Winter Mode indicator turns on when in this mode of operation. If the temperature drops to 4°C (39°F) within the heater chamber, the system automatically activates the pump to provide freeze protection. The pump will operate until the temperature reaches 5°C (41°F) before returning to normal system mode.

COOLING DOWN

After heating the spa water to the desired set point, the heater is turned off, but the filtration pump remains on for a certain amount of time to ensure adequate cooling of the heating element in order to prolong the useful life of the heater. The heater icon flashes during this time.

PUMP 1 FUNCTION



Press this key to activate the pump

1st press - low speed

2nd press - high speed

3rd press - turns off

PUMP 2 FUNCTION



Press this key to activate the pumps

1st press - pump 2 on high speed

2nd press - pump 2 turns off

PUMPS AUTOMATIC TIME-OUT

Time out – 30 minutes

LIGHT FUNCTION



Press this pad to activate the light

1st press: rotating colours

2nd press: solid blue colour

3rd press: solid green colour

4th press: solid red colour

Note: Pressing the light key in intervals less than five seconds will scroll to the next colour. Once you have selected the colour another press will turn the light off.

LIGHT AUTOMATIC TIME-OUT

Time out – 60 minutes

SUNDANCE® SWIM SPA SERIES CONTROL SYSTEMS
NORTH AMERICA / EUROPE
STREAM / SURF MODEL SERIES



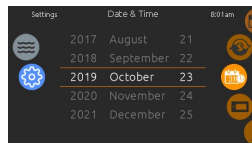
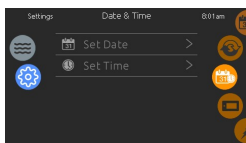
INITIAL START-UP

Before applying voltage to power-up your hot tub, it is very important that you understand the sequence of events that occur when the system is activated in order that the pump(s) can be primed efficiently and damage to the system can be avoided.

At initial power-up, the system will show the following screen.

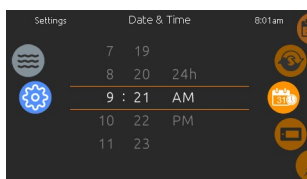


The keypad does store the date and time for a limited time so when the system starts up after a loss of power it may be necessary to reprogram the time and date if the power down duration is greater than 48 hours.



PROGRAMMING THE DATE AND TIME

Here you can adjust the time format (AM/PM or 24h), day of the week and time. Use the icons to choose the setting that you want to adjust and select it by scrolling through the menu.



TEMPERATURE CONTROL FUNCTIONALITY AND ADJUSTMENT

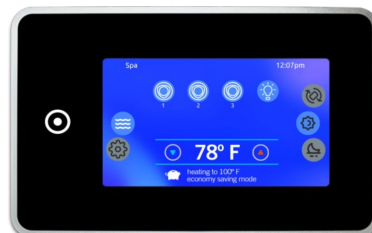


After you exit the programming mode your hot tub will automatically heat to the factory preset default temperature of 38°C (100°F).

The temperature shown in white on the screen is the current water temperature. Use the UP and DOWN icon to set the desired temperature.

The set point will appear in blue on the screen. After 3 seconds without any change to the set temperature value, the keypad will resume the normal display of messages.












When the set value is lower than the current temperature “Cooling to XX”F (“C)” will appear. When the value is set higher than the current temperature, “Heating to XX”F (“C)” will be indicated.



SUNDANCE® SWIM SPA SERIES CONTROL SYSTEMS
 NORTH AMERICA / EUROPE
 STREAM MODEL CONTROLS



KEYPAD FUNCTIONS AND DISPLAY ICONS

- | | | | | | |
|---|--------------------------------------|---|------------------------------------|---|-----------------------------------|
|  | SPA FUNCTION KEY |  | PUMP 1 FUNCTION KEY |  | INVERT DISPLAY KEY |
|  | SETTINGS FUNCTION KEY |  | PUMP 2 FUNCTION KEY |  | DAY NIGHT CONTRAST |
|  | QUICK START / STOP KEY |  | LIGHT FUNCTION KEY |  | SLEEP MODE KEY |
| | |  | TEMP UP KEY | | |
| | |  | TEMP DOWN KEY | | |

SUNDANCE® SWIM SPA SERIES CONTROL SYSTEMS

NORTH AMERICA / EUROPE

SURF MODEL CONTROLS



KEYPAD FUNCTIONS AND DISPLAY ICONS



SPA
FUNCTION
KEY



SETTINGS
FUNCTION
KEY



QUICK START /
STOP KEY



PUMP 1
FUNCTION
KEY



PUMP 2
FUNCTION
KEY



PUMP 3
FUNCTION
KEY



LIGHT
FUNCTION
KEY



TEMP
UP
KEY



TEMP
DOWN
KEY



INVERT
DISPLAY
KEY



DAY
NIGHT
CONTRAST



SLEEP
MODE
KEY

PUMP 1 FUNCTION

Press this pad to activate the pump

- 1st press – low speed (**icon rotates slow**)
- 2nd press – high speed (**icon rotates fast**)
- 3rd press – turns off

PUMP AUTOMATIC TIME-OUT

Low and High speed – 15 minutes

PUMP 2 FUNCTION (if included)

Press this pad to activate the pump

- 1st press – high speed (**icon rotates fast**)
- 2nd press – turns off

PUMP AUTOMATIC TIME-OUT

High speed – 15 minutes

LIGHT FUNCTION

Press this pad to activate the light

- 1st press: rotating colours
- 2nd press: solid blue colour
- 3rd press: solid green colour
- 4th press: solid red colour

Note: Pressing the light key in intervals less than three seconds will scroll to the next colour. Once you have selected the colour another press will turn the light off.

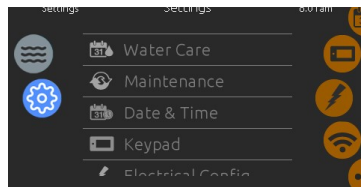
LIGHT AUTOMATIC TIME-OUT

Time out – 60 minutes

SETTINGS KEY

From the home page you can access the Settings, where you will find:

- Water Care
- Maintenance
- Day & Time
- Keypad Settings
- Miscellaneous
- Electrical Configuration
- About



Use the icon keys to scroll up and down in the list. To select an option, press the text.

At any point you can press the Spa Function icon to return to the home screen.



WATER CARE

1

The Water Care section will help you set up your ideal filtration and heating settings. Choose from Away, Beginner, Energy Savings, Super Energy Savings and Weekender, depending on your needs.

Use the Light key to choose your setting. A checkmark will appear on the selected icon to confirm.

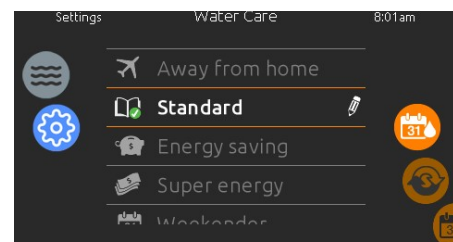


2



3

In Energy Savings mode, the set point will be reduced by 20°F (11°C), which means that the heating system will not be engaged unless the temperature falls to 20°F (11°C) below the spa's set temperature.



Water Care Modes:

Away:

In this mode the spa will always be in economy; the set point will be reduced by 20°F (11°C) and the filtration can be reduced.

Beginner:

The spa will never be in economy mode, and will run a normal 24 hours of filtration a day.

Energy Savings:

The spa will be in economy mode during the peak hours of the day and resume normal mode on the weekend.

Super Energy Savings:

The spa will always be in economy mode during peak hours, every day of the week.

Weekender:

The spa will be in economy mode from Monday to Friday, and will run normally on the weekend.

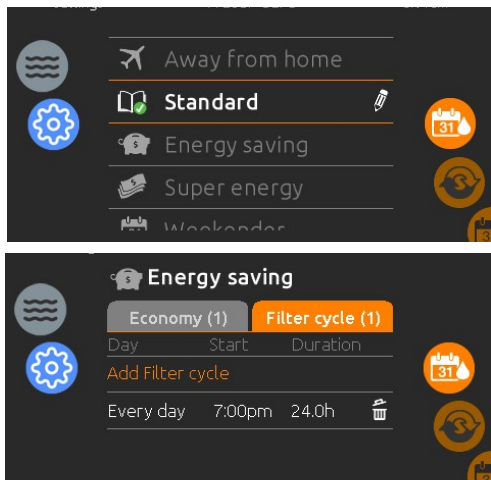
MODIFYING SCHEDULES

To see and / or modify the Water Care category, use the Settings icon to open the selected Water Care menu.

Scroll through the menu to choose a schedule to modify (choice of economy and filtration schedules).

You have several possibilities for the schedule (Mon-Fri, weekend, every day, or single days). The schedules will be repeated every week. The time and duration are set in 30 minute increments. Once you have set the schedule, use Spa Function Icon to go back. Ensure that you have selected the desired Water Care option in the main Water Care menu.

The filtration schedule shown on the screen will apply to the main filtration pump. Your spa uses a circulation pump configured to run 24 hours by default and the screen will show you the purge setting instead of filtration. The purges are pre-programmed for a fixed number of minutes, therefore the duration will be set to N/A on the screen, and only the start time can be modified.



FILTERING

Your spa is equipped with a circulation pump that filters your water for 24 hours a day. If the water temperature exceeds the set temperature by 4°F (and set point is 95°F or higher) then this pump will shut off automatically until the temperature drops below the set point by approximately 1.5°F.

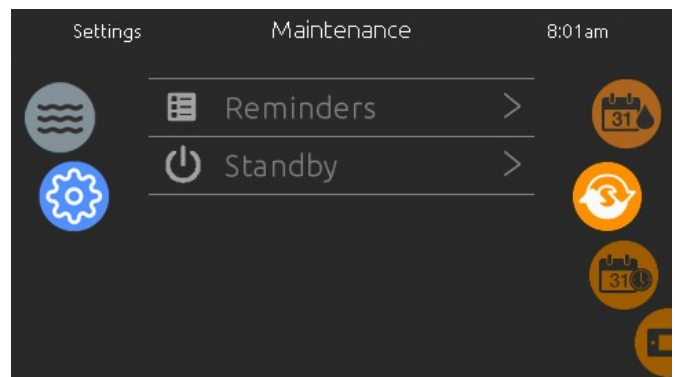
You can bypass the pack filtration over-temperature feature. When Warm weather is "Off", the filtration over-temperature is disabled. This feature allows the spa to continue filtering even through the water temperature is high.

MAINTENANCE

From the Settings page you can access the Maintenance Menu, which gives you access to the following options:

- Maintenance reminders
- Standby

Press the text to make a selection.

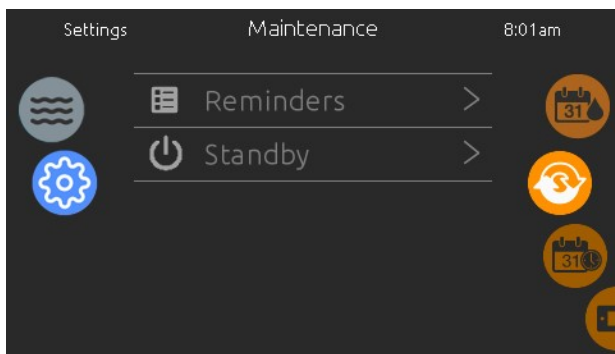
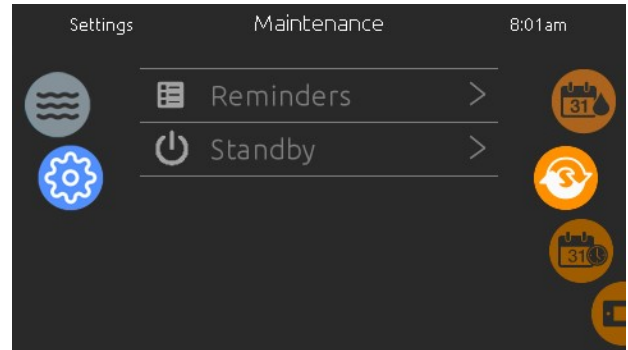


MAINTENANCE REMINDERS

The in.k1001 keypad will remind you of maintenance required on your spa, like rinsing or cleaning the filter. Each task has its own duration, based on normal use.

The Maintenance Reminders menu allows you to verify the time left before maintenance is required, as well as to reset the time once a task is completed.

Scroll through the menu to move through the list.



STANDBY

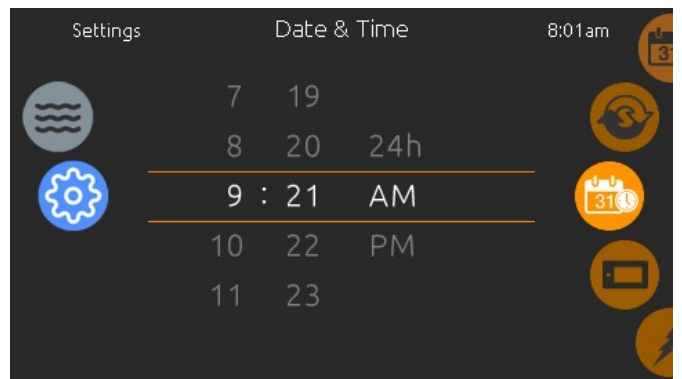
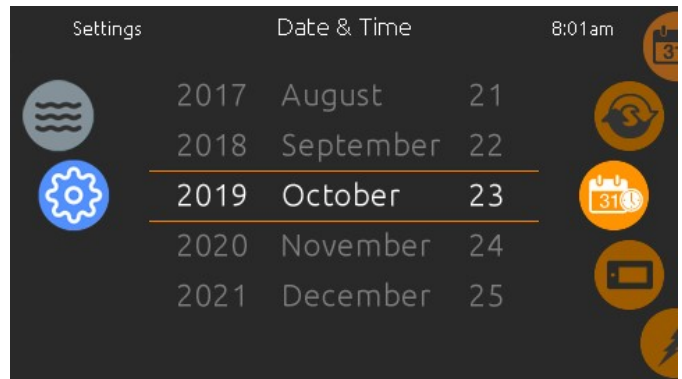
The Standby mode allows you to service your spa. Pumps will stop for 30 minutes, and automatically restart after this time.

Once Standby mode has been activated a screen will appear to show the pumps are stopped. The normal spa page will return at the end of the maintenance.

Press Cancel to leave Standby mode and restart the spa.

DATE AND TIME

Here you can adjust the time format (AM/PM or 24h), day of the week and time. Use the icons to choose the setting that you want to adjust and select it by scrolling through the menu.

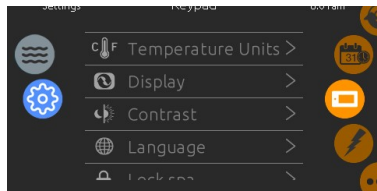


KEYPAD SETTINGS

In this section you can change the temperature unit and language. Use the arrow keys and move to the setting that you would like to change. Use the Light key to choose and the arrow keys to modify

For the temperature setting you have a choice between Fahrenheit or Celsius.

For the language setting you have a choice between English and French.

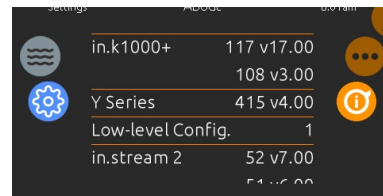


ELECTRICAL CONFIGURATION

Please do not make changes in this section unless you are a qualified electrician.

ABOUT

This section shows information about the keypad software number and the revision numbers of the different components of your system.



PURGE CYCLES

The purge cycles are programmed to begin at the start of each filter cycle. Pump 2 activates for 1 minute, shuts off and then Pump 1 activates for 1 minute then shuts off.

SMART WINTER MODE

Smart Winter Mode protects your system from the cold by turning the pumps on several times a day to prevent water from freezing in the pipes. The Smart Winter Mode indicator turns on when in this mode of operation. If the temperature drops to 4°C (39°F) within the heater chamber, the system automatically activates the pump to provide freeze protection. The pump will operate until the temperature reaches 5°C (41°F) before returning to normal system mode.

COOLING DOWN

After heating the spa water to the desired set point, the heater is turned off, but the filtration pump remains on for a certain amount of time to ensure adequate cooling of the heating element in order to prolong the useful life of the heater.

STANDBY MODE



Press the **SETTINGS** icon and scroll to the **MAINTENANCE** menu options. Press the **MAINTENANCE** icon to display the **STANDBY** icon. Press the **STANDBY** icon and the following message will appear.

“All pumps off! Press Cancel to exit Standby mode or Drain to drain spa”

This mode allows you to stop all outputs including all automatic functions such as a filter cycle, heating requests and smart winter mode purging for 30 minutes to perform quick spa maintenance.

DRAIN MODE

If you wish to put your spa into **“DRAIN MODE”** follow the instructions above for putting the spa into **“STANDBY MODE”** and then press **DRAIN** on the display. Once you do that the display will indicate **“Drain in progress”**. The filtration pump will turn on and run for 60 minutes.

TOPSIDE PANEL DISPLAY MESSAGES

Hr - An internal hardware error has been detected

Prr - The Prr error message indicates a problem with the regulation probe. The system is constantly verifying if the temperature probe reading is within its normal limits.

HL - The water temperature at the heater has reached 119°F (48°C). **Do not enter spa water.**

FLO - The system did not detect any water flow while the filtration pump was running.

UPL - No low level configuration software has been downloaded into the system.

AOH - The temperature inside the spa skirt is too high, causing the internal temperature in the spa pack to increase above the normal limits.

OH - The water temperature in the spa has reached 108°F (42°C). **Do not enter spa water.**

AUXILIARY HEATER BYPASS LOOP

When your installation calls for an auxiliary heater, our swim spas can be built with special plumbing that will easily and reliably allow for the additional installation of an alternative heat source (heat pump, electric heat, gas heat or solar). Simply connect your additional system plumbing to our pre-installed plumbing and check valve system for optimal performance and safety.



SUNDANCE® WATERFALL FEATURE

Turn the waterfall control valve counterclockwise to increase the waterfall flow output. Turn the waterfall control valve clockwise to decrease or turn off the waterfall output. The waterfall is on when the pump used for water filtration is running.

NOTE: It takes 2 full revolutions to change the waterfall from full off to a full on flow rate. When the waterfall is in the OFF position some water may still flow through. This is considered normal.



FLUIDIX JETS AND ADJUSTMENTS

The jets in your new Sundance® swim spa offer the advantage of no moving parts and zero maintenance. They can also be adjusted for a high and low impact massage, providing the ultimate massage!

To adjust the jets:

1. Fluidix NEX / Intelli-Jets and Reflex Jets only

Turn the outer dial (A) clockwise to increase the water volume. Turn the outer dial counterclockwise to decrease the water volume or to shut the jet off.

2. Fluidix Intelli-Jet Only:

Rotate the center “mode disk” (B) clockwise to select a non-oscillating water stream or turn counterclockwise to select an oscillating stream at any angle.

3. For a high impact massage, turn the corresponding air control knob clockwise. For the Fluidix ST™ jet, this will create a straight water flow. For a low impact massage, turn the corresponding air control knob counterclockwise. For the Fluidix ST™ jet, this will create an oscillating flow. The tool included (shown) allows you to position the jet nozzle angle to your liking. This tool can also be used to aid in opening or closing of the nozzle on the Fluidix Reflex jets.



Fluidix Intelli-Jet™



Fluidix Reflex™ Jet



Fluidix ST™ Jet and jet key

OPTIONAL SMARTTUB® SYSTEM

Advances in technology have allowed us to create a better and smarter swim spa. Our SmartTub® system operates on a cellular network. The advantages of this system are:

- A more stable connection to internet for outdoor environment. The SmartTub® device uses much less data than a typical voice connection via cellular networks. We contract through the largest wireless carriers to ensure maximum uptime. The system enables firmware updates via the cell connection so your system's performance will continuously be optimized remotely.
- Maintenance is made easy by alerts sent to your phone.
- Diagnostic alerts are sent to you and your dealer when attention is required.

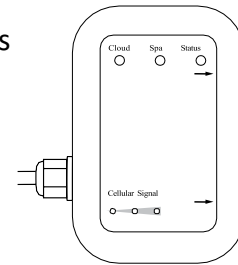
A. Pairing process

1. Download the SmartTub® app from the Google Play store or Apple App store.
2. Open the app and create an account.
3. Locate the SmartTub® sticker next the control panel of the swim spa. You can either scan the QR code with the SmartTub® app or manually input the serial number located below the QR code on the sticker.
4. After you pair the swim spa's serial number to the SmartTub® app, the app will load and connect the hot tub to the internet.
5. Follow the instructions on the app to begin enjoying the benefits of your internet connected swim spa.

Note: The first year of data service is included. You will need to renew the subscription after the first year. Please refer to the terms of service and privacy policy links in the SmartTub® app for additional information.

Indicator Lights

There are indicator lights on the SmartTub® controller that relay the status of the system. Below are meanings of the lights.



1. Cloud:
 - Blue light on - connected to cloud.
 - Blue light off - not connected to cloud.

2. Swim Spa:
 - Blue light on - connected to swim spa controller
 - Blue light off - not connected to swim spa controller

3. Status:
 - Cyan light - breathing (slow pulsing) indicates the status is good.
 - Cyan light - flashing indicates that the system is completing a connection to the cloud.
 - Green light - flashing indicates waiting for a connection to the cellular tower.
 - Dark blue light - flashing indicates a SIM error.

4. Cell signal strength:
 - 3 blue LED lights indicates cell signal strength.

C. Resetting the SmartTub® controller

Should the SmartTub® controller need to be reset, hold a magnet to the reset label on the side of the SmartTub® device.

SUNDANCE® SURF SWIM SYSTEM

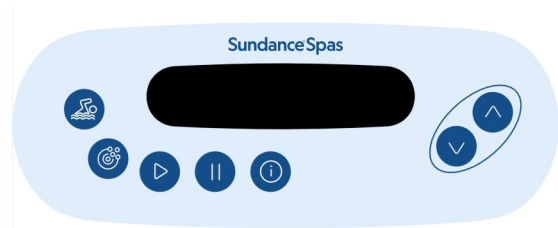
ADJUSTABLE FLOW CONTROL

Your Sundance swim spa is equipped with 1 DIVERTER valve to control and adjust water flow to suit individual user preference. The pump 1 (P1) DIVERTER valve provides variable water flow adjustment between the lower swim jet (providing added buoyancy and variable swim resistance), and the hydrotherapy jets on the bucket seats, or a combination of both.

SUNDANCE SURF SWIM SYSTEM (Surf Models only)

This system allows for the swimmer to vary the flow of water and adjust the swim intensity of the jets. Allows quick adjustment to level of fitness the swimmer is accustomed to from Novice to Triathlete. This option has a keypad near the swim end so that they can easily adjust their swim without having to go back to the main keypad area and eliminates the need for manual diverters.

NOTE: You should always start from a full on or full off position to ensure you have consistent water flow. Failure to do so may unbalance the system requiring it to be recalibrated.



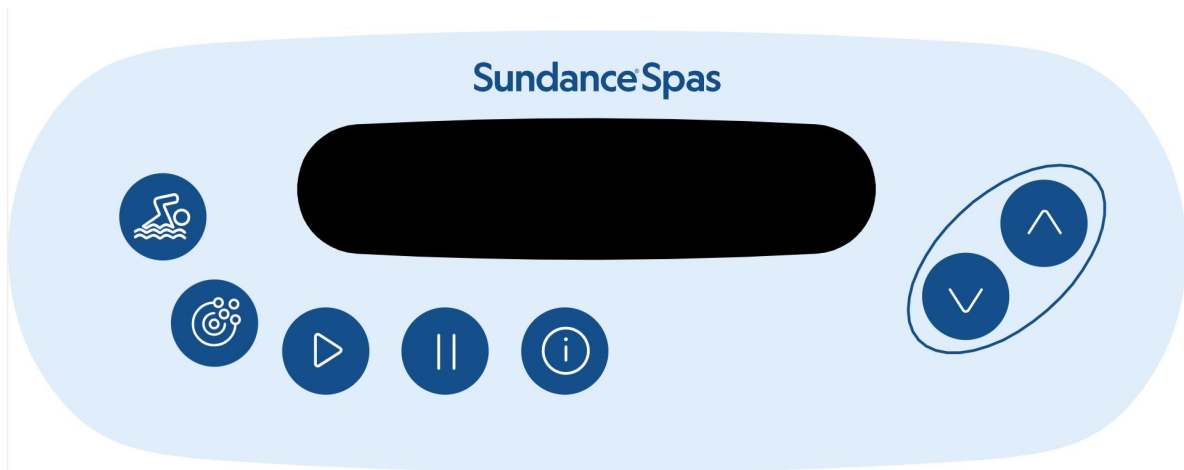
SELF-CALIBRATION PROCEDURE

1. After you manually set up the cam positions, you must set up the programming ensuring that the communication cables coming out of the DJS-5 black box are directed to the main and auxiliary packs respectively.
2. Press the **PROGRAM** key for 30 seconds or until the display shows “F50H” or “F60H”.
3. If the swim spa is for North American use select “F60H” by using the up and down arrows on the keypad. If the swim spa is for European use select “F50H”.
4. Press the **PROGRAM** key again and the display will show “SET1”. Press the **PROGRAM** key again and the controller will go through a learning mode to ensure that the cams have been set up properly.
5. If the cams have not been set up properly you will get an “ERR” code and possibly a service wrench on the side display.
6. In that case one of the actuators is defective and needs to be calibrated or replaced.

Contact your local retailer for service.



SUNDANCE® SURF SWIM SYSTEM



KEYPAD FUNCTIONS AND DISPLAY ICONS



PROGRAM KEY



**PUMP 1 FUNCTION KEY
(WARM UP)**



**PUMP 2 & 3 FUNCTION KEY
(QUICK START)**



PAUSE KEY



DISPLAY KEY



INCREASE FUNCTION KEY

INCREASES SPEED



DECREASE FUNCTION KEY

DECREASES SPEED

SWIM SPA WATER BALANCE – GENERAL OVERVIEW

NOTABLE POINTS

- The reliability and longevity of your swim spa support equipment are directly related to how well water quality is maintained!
- The small volume of water in your swim spa is easily affected by the introduction of oils, lotions, perspiration and chemicals. It is imperative that you give your swim spa regular attention to maintain clean, safe and balanced water to prevent premature damage and/or failure (corrosion/calcification) to the support equipment. Maintaining proper swim spa water balance and sanitizer levels is extremely important. Neglected hot water will allow bacteria to quickly spread.
- The mineral content of swim spa water increases due to water evaporation, sanitizers and other chemicals. If the mineral concentration, particularly calcium, becomes too high, the minerals will literally “drop” or precipitate out of the water and deposit on the swim spa walls, plumbing, jets, in the filter and on the heater element.
- It is very important that pH be checked frequently and maintained in the recommended range as indicated in the chart **WATER BALANCE SUMMARY FOR YOUR SWIM SPA**
- It is also very important that Total Alkalinity (the ability of the water to resist a change in pH) be maintained in the recommended range as indicated in the chart **WATER BALANCE SUMMARY FOR YOUR SWIM SPA**
- Although there may be two identical swim spa models right next door to each other, the maintenance requirements will be different, dependent on such factors as:
 - bather load
 - frequency of use/quantity of bathers
 - different body chemistry
 - sun vs. shade
 - temperature

For these reasons, it is very important to develop proper swim spa water maintenance habits and follow your Sundance® retailer’s recommended water maintenance procedures.

Floating dispenser: Add 6 or 7 tablets, adjust initially to ‘5’, allow water to circulate for 3 to 4 hours, then test.

The tablets will dissolve slowly over a 10-14 day period, depending on setting, and use of the hot tub.

5 Test pH and Total Alkalinity and also adjust accordingly.

Expose the large Refill hole at the end of the tube and add 5 or 6 tablets.

Do not overfill dispenser as performance will be affected. Turn to

expose the largest area and allow water to circulate for 3 to 4 hours before testing level. Adjust to lesser area as necessary to maintain a level of **3-5** PPM Sanitizer.



WARNING

CHEMICAL HANDLING SAFETY HINTS

- **Never pre-mix chemicals with each other prior to adding to hot tub water.**
- **Add only one chemical to the water at a time.**
- **Always add chemicals to water and not vice-versa.**
- **Chemicals may be corrosive, so handle with care and store in a cool dark place.**
- **Never smoke near chemicals as most are flammable**
- **Ensure any spilled chemicals are carefully cleaned up immediately.**
- **Always have the POISON CONTROL telephone number handy in the event of an emergency.**
- **Keep chemicals out of children’s reach**
- **Wear safety glasses and gloves when handling chemicals.**

INITIAL WATER FILL & BALANCE

- 1 Make sure the swim spa is circulating.
- 2 Add a sequesterant (stain and scale controller). Allow water to circulate for an hour before adding anything else to the swim spa water.
- 3 Add a Shock / oxidizing agent.
- 4 Add sanitizing tablets (Bromine or Chlorine) to the dispenser.



Heater and other component failure due to improper water balance is not covered under warranty.

GLOSSARY OF COMMON WATER MAINTENANCE TERMS

1. **CHLORINE** – in granular, liquid or puck/tablet form, is an oxidant and biocidal agent. It is very effective and fast acting. Recommended chlorine residual level is 3.0 to 5.0 ppm.
2. **CHLORAMINES** – a compound formed when chlorine combines with nitrogen or ammonia present in the water. When allowed to go unchecked, it causes eye and skin irritation and is indicated by a strong chlorine odor.
3. **ONE-PART BROMINE** – also available in puck/tablet form, is another type of oxidant/biocidal agent, and is introduced into the hot tub water via a brominator. Recommended bromine residual level is 3.0 to 5.0 ppm.
4. **TWO-PART BROMINE** – composed of a liquid or powder component introduced manually into the water on a weekly basis, and a granular component that is added daily or as the hot tub is used.
5. **BROMAMINES** – are formed when bromine destroys nitrogen-bearing organic matter. Unlike chloramines, bromamines don't cause eye irritation, however, when allowed to go unchecked, will cause an objectionable odour.
6. **SHOCK** – the practice of adding an oxidizing agent to hot tub water to destroy ammonia, nitrogenous and organic contaminants (chloramines and bromamines)
7. **pH** – a logarithmic value expressing the relative acidity or basicity of a substance (such as hot tub water) as indicated by the hydrogen ion concentration. pH is expressed as a number on a scale of 0 to 14, where 0 is most acidic, 1 to 7 being acidic, 7 considered neutral, 7 to 14 being basic, and 14 being most basic. The ideal range for hot tub water is 7.4 to 7.6 ppm
8. **pH INCREASER** – raises the pH level of the water.
9. **pH DECREASER** – lowers the pH level of the water.
10. **TOTAL ALKALINITY (TA)** – the amount of carbonate, bicarbonate and hydroxide compounds present in the water that determines the ability or capacity of the water to resist change in pH. Also known as the 'buffering' capacity.
11. **ALKALINITY BOOSTER** – raises the alkalinity.
12. **CALCIUM HARDNESS** – the calcium portion of the total alkalinity which represents 70 to 75% of total hardness. Calcium concentrations determine whether water is 'soft' - too little calcium, or 'hard' -too much calcium.
13. **CALCIUM BOOSTER** – increases the calcium level.
14. **TOTAL DISSOLVED SOLIDS (TDS)** – a measure of the total amount of dissolved matter in the water (calcium, carbonates, bicarbonates, magnesium, metallic compounds, etc.)
15. **SEQUESTERANTS (STAIN AND SCALE CONTROLLERS)** – keeps dissolved metals and minerals in the water from attacking the hot tub shell and support equipment components.
16. **DEFOAMER** – removes foam build-up from the water surface. At best, this is a temporary remedy, as excessive foam is merely a symptom of improper water balance (typically high organic residue and/or high pH).
17. **CARTRIDGE FILTER CLEANER** – degreases and cleans cartridge filters.
18. **OZONATOR** – generates Ozone (a gaseous molecule composed of 3 atoms of oxygen) and is injected into the hot tub water for the oxidation of water contaminants.
19. **TEST KIT** – used to monitor specific chemical residual or demands in the water. May be in the form of litmus strips or liquid drops.
20. **20 PPM** – abbreviation for 'parts per million', the unit of measurement used in chemical testing which indicates the parts by weight in relation to one million parts by weight of water. Essentially identical to the term mg/L - milligrams per liter.

WATER BALANCE SUMMARY FOR YOUR SWIM SPA*

| SANITIZER (ppm) | MIN | IDEAL | MAX |
|-----------------------|-----|-----------|-----------|
| Chlorine | 1.0 | 3.0 - 5.0 | 5.0 |
| Bromine | 1.0 | 3.0 - 5.0 | 5.0 |
| CHEMICAL | | | |
| PH | 7.2 | 7.4 - 7.6 | 7.8 |
| Total Alkalinity (TA) | 80 | 80 - 120 | 180 |
| Calcium Hardness | 150 | 200 -400 | 500 -1000 |

*National Spa & Pool Institute recommended levels for residential spas/hot tubs

WATER BALANCE TROUBLESHOOTING

| PROBLEM | POSSIBLE CAUSES | SOLUTIONS |
|--|---|--|
| Cloudy Water | Microscopic particles too small to filter out. | Test and adjust all water balance elements and add flocculent* to cause the particles to combine together so they can be filtered out. Increase filter cycle time. |
| High Total Alkalinity High pH levels High Calcium Hardness | | Test these water balance elements and adjust to recommended parameters. |
| Scale (White/Grayish Deposit) | High Calcium Hardness | Test calcium hardness level and treat with sequestering agent* or perform partial drain/refill. |
| Skin Eye Irritation | Improper pH and/or Total Alkalinity levels | Test water balance and make the appropriate changes. |
| Excessive Foam | Buildup of body oils or cosmetics | If no water line is present you can try using defoamer* to break up the contaminants and then a clarifier* to help filter them away. If a water line is present the spa may need to be drained and cleaned. Either way, the filter should be thoroughly cleaned by soaking overnight in bleach. An oil absorbing sponge can help in preventing this in the future. Increase filter cycle time. |
| | Laundry detergent residual in swimwear | Prevent by running an extra rinse cycle on washing machine or re-rinse well by hand |
| | Excess organic contaminants | Some organic matter is prone to causing foamy water as it breaks down in the filter (maple leaves especially). Generally using defoamer* to break up the contaminants, then a clarifier* To help filter them away followed by thoroughly cleaning your filter will clear up the problem. It may however be necessary to drain and refill your spa if the foaming is quite excessive. |
| | Low Calcium Hardness | Test calcium hardness and if necessary increase with calcium chloride* |
| Corrosion/Etching | Presence of metals in water (iron, copper, etc) | Test total alkalinity levels and if necessary increase with sodium bicarbonate* |
| Discoloured Water (Clear v. turbid water) | Presence of metals in water (iron, copper, etc) | Treat with chelating* or sequestering agent* |
| Unstable pH | Low Total Alkalinity levels | Test total alkalinity levels and if necessary increase with sodium bicarbonate* |
| pH resistant to changing | High Total Alkalinity levels | Test total alkalinity levels and if necessary decrease with sodium bisulfate* or muriatic acid* |
| | | * Contact your local Sundance retailer for specific product recommendation |



ROUTINE SWIM SPA MAINTENANCE

REVIEW CHEMICAL HANDLING SAFETY HINTS

DAILY

- 1 Test water, and if necessary, add shock.
- 2 Ensure proper water level is maintained.

WEEKLY

- 1 Test pH and Alkalinity. Adjust accordingly
- 2 Top-up chemical dispenser
- 3 Add sequesterant (**stain and scale controller**)
- 4 Remove and spray cartridge filter with garden hose and re-install (**see section CARTRIDGE FILTER**)
- 5 Add Shock / oxidizing agent
- 6 Inspect union connections for o-ring and gasket leaks - Tighten if loose.

MONTHLY

Soak your filter cartridge in a filter cartridge cleaning solution. Rinse thoroughly and, if possible, allow to dry before re-installing. Sundance recommends purchasing a second filter so that while the first is cleaning, the other is clean and ready to install

QUARTERLY

At least once per quarter, clean the acrylic shell surface with a non-abrasive cleaner designed specifically for acrylic surfaces.

SAFETY HARD COVER

When a hot tub is uncovered, over 90% of heat is lost from the water surface. This evaporation also affects the chemical balance and could create humidity problems indoors. SUNDANCE® Safety Hard Covers are engineered for maximum thermal efficiency and appearance. They are hinged in the middle for easier handling, and the zip fastener allows the tapered foam inserts to be changed if damaged. The skirt of the safety hard cover hugs the lip of the hot tub for a tight fit. The locks, with one part fastened to the deck or skirt, prevent small children or animals from entering the hot tub. Do not drag the safety hard cover across the hot tub or decking. Standing on the hardcover could cause the tapered foam inserts to crack, which will lead to water absorption.

NEVER LEAN OR STAND ON YOUR HARDCOVER.

The cover should be cleaned at least twice a year with a vinyl moisturizer and protector.

NOTE: ALWAYS ENSURE THE SAFETY HARDCOVER IS IN PLACE AND LOCKED WHENEVER THE HOT TUB IS NOT BEING USED. FAILURE TO DO SO MAY CAUSE DAMAGE OR CRACKING OF THE ACRYLIC SURFACE NOT COVERED UNDER THE WARRANTY.

CARTRIDGE FILTER

The cartridge should be cleaned every two to four weeks, depending on the amount of use. Signs that the filter requires cleaning include:

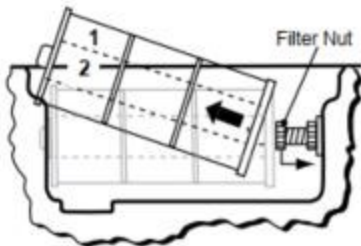
- **Reduced jet power**
- **Hazy gray water**
- **Rattling noise in the pump or filter**
- **Heater not working**

REMOVAL

1. Activate the **STANDBY/DRAIN ASSIST** mode.
2. Remove the filter cover.
3. Loosen the filter nut to provide clearance.
4. Lift the filter out of the housing.

CLEANING

5. With a garden hose and spray nozzle, hose off the cartridge element, ensuring to carefully separate every pleat.
6. To remove collected lotions, body oils, etc. soak the cartridge in warm water and a filter cleaning/emulsifying compound (**available at your SUNDANCE® retailer**).
7. A cleaning cylinder may be purchased from your SUNDANCE® Retailer.
8. Rinse thoroughly and dry before replacing.
9. Sundance® recommends purchasing a spare filter cartridge so that you always have a clean substitute ready to rotate.
10. After the element has dried - if necessary, lightly brush between pleats with a fine paint-brush to remove remaining dirt particles.



RE-INSTALLATION

11. Place the cartridge filter back into the filter housing.
12. Rotate the filter nut until the filter is tight in place.
13. Reinstall the filter cover.
14. Take the system out of **STANDBY/DRAIN ASSIST** mode.
15. When the pump starts circulating on low speed, it will be necessary to release trapped air in the filter.

CLEANING THE ACRYLIC SURFACE

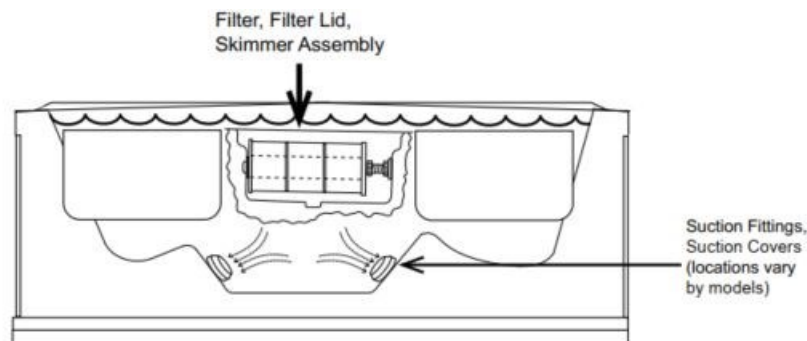
The acrylic surface can be cleaned and polished using a soft cloth and acrylic cleaner, available at your Sundance® retailer.



- **Important: Do not use detergents - the remaining residues will adversely affect water chemistry, making it difficult to maintain proper water balance**
- **Do Not use abrasive cleaners – damage to the acrylic surface will occur.**



- **Do not use a wire brush or other device to clean cartridge element.**
- **Do not put in dishwasher or washing machine.**



CHANGING THE SWIM SPA WATER

The water in your swim spa must be carefully monitored and drained regularly as required, depending on size and amount of use. Draining at least once annually is strongly recommended and offers the opportunity for inspection of jets and suction fitting covers. If your swim spa is used daily or by a large number of bathers, the water should be drained more often. One method to determine the approximate length of time between water changes is to divide the water volume (in litres) of your swim spa by 13.5 and then divide by the average number of bathers each day.

Formula

$$\left(\frac{\text{Volume of water in litres}}{13.5} \right) \div \left(\frac{\text{Average daily bathers}}{\text{Days between water changes}} \right) = \text{Days between water changes}$$

Volume of water in litres Average daily bathers Days between water changes

EXAMPLE:

1000 liters divided by 13.5 divided by 2 = 37 days. The swim spa water must be changed when the amount of dissolved solids becomes excessive, and is usually indicated by "gray" or dull looking water.

DRAINING YOUR SWIM SPA

REFER TO FIGURE 1 & FIGURE 2

1. Locate nearest drain facility (**Check your local bylaws**).
2. Put the swim spa control system into **STANDBY/DRAIN ASSIST** mode. The system will automatically exit Standby Mode after 1 hour and resume normal operating functions.
3. Remove the filter lid and filter.
4. Attach backwash hose to hose bib located on plumbing line beside the hot tub control system.
5. Run backwash hose to your drain location.
6. Open hose bib.
7. Close filtration pump return gate valve next to the hose bib (this directs the water out the drain hose).
8. Activate the circ pump.
9. Monitor the swim spa while it drains.
10. Use the second garden hose to wash down interior surface as the swim spa continues to drain. A sponge may also be used to wipe down the interior surface.

WATER SOFTENERS

Never fill a swim spa with water from a water softener, as it could adversely effect the water chemistry, making it difficult to maintain proper water balance. If you live in an area with hard or soft water, give careful attention to your Calcium Hardness level. Topping up with soft water is acceptable.

11. To completely flush the old water from the plumbing lines: allow fresh water to fill into the foot-well area while the old water continues to be pumped out. Always keep at least 10 cm (4 in.) of water in the foot-well so that pump 1 remains primed.
12. When the water from the drain hose turns clear (indicating fresh fill water), flush is complete.
13. Turn OFF the filtration pump.
14. Close the drain-hose bib on the swim spa plumbing line and continue filling swim spa with fresh water.
15. Place cover on swim spa (to avoid splash-out).
16. Open filtration pump return gate valve.
17. Press any button on the topside control panel (other than the pump 1 button) to take the system out of **STANDBY/DRAIN ASSIST** mode. Filtration pump and the heater will activate to circulate and heat the water while filling continues. This also reduces the possibility of an airlock occurring.
18. Continue adding fresh fill water until level is approximately 19mm (3/4 in.) from the top of the skimmer opening.
19. If the filter housing was opened to replace the cartridge filter, it will be necessary to release trapped air from the filter housing.
20. In the unlikely event of a pump air lock (pump 1 is operating but there is no water movement from the jets), refer to section **PUMP PRIMING/RELEASING AN AIR LOCK**



FIGURE 1



FIGURE 2

TRICHLOR WATER TREATMENT

TriChlor tablets dissolve very fast in comparison to Bromine tablets and also decreases the pH levels. TriChlor is commonly used in swimming pools and is added to the water using an in-line chlorinator, feeder or floating feeder. Trichlor should not be used in spas and swim spas due to its corrosive nature and due to the adverse affects it can have on the pumps, jets and acrylic surface. Since many chlorine tabs or pucks contain TriChlor, we do not recommend the use of them in any form and in most cases this will void the warranty.

WINTERIZING YOUR SUNDANCE® SWIM SPA

In the event that you do not wish to use your swim spa year-round, it is very important that you properly winterize it to protect against damage from freezing. Your **SUNDANCE®** retailer can perform this service for a nominal fee. If you choose to winterize your swim spa yourself, please follow the directions outlined below:

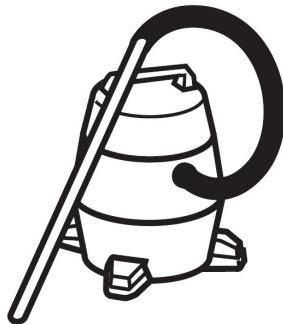
1. Drain the swim spa tub entirely. See section - **DRAINING YOUR SWIM SPA**.
2. Remove and clean the filter cartridge. See section - **CARTRIDGE FILTER**.
3. Remove all of the jet inserts that are removable, any suction covers, water diverter cap(s) and waterfall control valve cap(s).
4. Using a wet / dry utility vacuum, remove remaining water from the jet openings, filter cartridge housing and footwell.
5. Using the blower side of the vacuum, position the blower nozzle into the top of the water diverter cap to blow out any water remaining in the plumbing lines so that the excess water will come out the jet bodies.
6. Replace all of the water diverter caps and waterfall control valve caps ensuring all gaskets are in place.
7. At the equipment end, loosen one union from each pump so that any excess water in each pump can be vacuumed out completely.
8. Either pour or use a turkey baster where necessary to add potable biodegradable RV antifreeze to areas such as pump wet ends, jet channels, filter housing and any blower channels.
9. Reinstall all jet inserts and all suction covers.

DO NOT USE AUTOMOTIVE ANTIFREEZE.

- **Important:** mixing potable biodegradable RV antifreeze with water significantly reduces its ability to protect against freezing. Therefore, it is very important ALL water is removed from the hot tub plumbing before adding.
- Add potable RV antifreeze to the holes in the bottom suction/drain to prevent any trapped water in the false floor from freezing and damaging the hot tub shell.
- Turn pump on for only a few seconds to circulate the antifreeze.
- Cover exposed plumbing connections with plastic bags and duct tape.
- Where practical, disconnect swim spa support equipment and store in a dry heated area.
- Install the safety hardcover, and cover the entire hot tub with a tarp to prevent premature weathering of the cabinet and the safety hard cover.
- Remove snow build up regularly to prevent damage to the safety hard cover.
- It is assumed that your **SUNDANCE®** swim spa has been properly installed on a reinforced concrete pad to eliminate lifting of the hot tub due to hydrostatic ground water pressure.



DRAIN PLUG LOCATIONS



If you are not 100% confident that your hot tub is properly winterized, please consult your authorized **SUNDANCE®** Retailer. Caution recommends that an authorized Sundance® Retailer winterize your hot tub in the initial year. Damage as a result of freezing is not covered by the warranty.

GENERAL TROUBLESHOOTING CONTINUED

WHAT TO DO IN THE EVENT OF...

...POWER FLUCTUATIONS

The power supply into your home is, for the most part, fairly consistent.

However, when local power demand is high, there is a tendency for the voltage entering your home to drop (sometimes significantly) or fluctuate.

This condition is referred to as a 'brown-out'. Although safeguards have been built into the system to protect against this condition, supply voltage may drop low enough, if even for a second, to cause the system to display a 'ghost' message. Should this occur or if the display shows partial messages, try resetting the system by turning power to the swim spa, waiting a few minutes, then turning power on again. If this does not reset the system, contact your local Sundance retailer or service organization.

...POWER FAILURE OR SYSTEM FAULT DURING COLD WEATHER CONDITIONS

If your control system will not reset, (ie. GFCI trips) or if your pump will not circulate for any other reason, place a low wattage space heater under the cabinet in the equipment area. This will delay the risk of freezing while a service appointment is scheduled.



Always follow the manufacturers instructions when locating and placing a portable electric space heater into service. Ensure that safe clearance to combustible surfaces is maintained. Do not leave unattended.

NOTES:

IN.YE-6 NA WIRING DIAGRAM

