## Spa Control Functions

**IMPORTANT.** Before performing any service on the spa, contact your local Factory Authorized Dealer. Make a visual inspection of the spa to get an understanding of what condition it may be in and if anything look out of the ordinary. If any part appears to be damage, loose or missing, do not proceed. Contact your Factory Authorized Dealer immediately.

Your spa control has been specifically designed so that by simply connecting the spa to its properly grounded source, and following the start-up procedures in this manual, the spa will automatically heat to the set temperature. You can adjust the set temperature by pressing the up or down arrows on your control panel to the desired temperature. When your spa is heating the heat indicator on your control panel will be on.

#### Power-Up Detection

After a power-up, on the first 10 seconds the display will alternate between the software number and revision, the display will then blink until somebody presses a key. This feature lets you know that a power failure has occurred and all settings have returned to default.



#### Panel Lock

It is possible to lock out all the keys. This feature is helpful when young children could have access to the keypad. To lock/unlock the keypad, simply press on the Pump #1 key for at least 5 seconds.

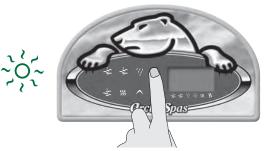
There are 2 keypad lock modes: the full lock, or the partial lock. The full lock, as the name implies, locks ALL keypad functions. The partial lock locks only the programming functions; the Pump, Blower, and Light keys remain useable.

To lock, press on the Pump #1 key for 5 seconds. At that point, "LocP" will be displayed. If the key is released at this time, keypad will be in partial lock. However, if lock key is kept pressed for another 5 seconds, "LocF" will appear and the keypad will be fully locked.

When the keypad is locked, all automatic functions of the system run as usual. However, when a locked key is pressed, an "LocP" or "LocF" message is displayed for 1 second. Also note that a power-up unlocks the keypad.









#### **Invert Display**

It is possible to invert the display so that the display is readable from either inside or outside the spa. To do this, just press on the filter key for 5 sec to toggle between the inverted mode or not.

### Temperature displayed in Fahrenheit or Celsius

The temperature can be displayed in Fahrenheit or Celsius. To toggle between those choices, press on light key for five seconds.

Note that after a power-up the system always return to default Fahrenheit display.

#### **Boost Filtration mode**

This mode is used to speed-up filtration after intensive use of the spas or to help mix chemical just added in the spa. Press the PUMP2 key for 5 seconds to enable the Boost Filtration mode. In this mode, the Pump1 high speed and the ozonator will operate during 45 minutes. When enabled, 'BOO' message is displayed.

#### Clean filter reminder

This message is displayed to remind you to clean the filter cartridge on the spa. The display will start blinking with the 'CLE'. The message will clear itself by pressing any key on the keypad. Replace with an Arctic Pure<sup>™</sup> disposable filter every three (3) months. For the Marmot replace with two filbur #SC-3077B filter cartridges.

# Topside Control Panel Buttons

The topside control panel has buttons which you press to set the temperature, initiate the filtrations cycle, turn the light on, and activate or deactivate the pump(s) and blower. The Topside control panel display responds to let you know you have pressed a button, and that the selected function has been performed.

#### Temperature Control (Up & Down Arrows)

These keys are used to set the temperature of the water. As soon as you press one of these keys, the display will show the current set point and will keep showing it for 5 seconds after releasing the key. Pressing the keys will either increase or decrease the current set point. The Set Point logo on the display tells you if the display shows the current set point or the actual temperature of the water.

The water temperature can be adjusted in 1 degree increments from 15 to 40°C. After a power down, the default set point is 39°C.



#### Pump 1 Button

Press the Pump 1 key to turn Pump 1 on. A second press will change Pump 1 speed. A third press will turn Pump 1 off. Note: You may not be able to shut Pump 1 off if in a filter or heating cycle. A built-in timer will shut Pump 1 off 20 minutes after it has been started.

The Pump 1 ON triangular icon will appear solid on the display when Pump 1 is running at high speed. It will flash when Pump 1 is running at low speed.



#### Pump 2 Button (Optional)

Press the Pump 2 key to turn Pump 2 on High speed. A second press will turn Pump 2 off. If Pump 2 is left on, it will automatically shut off 20 minutes after it has been started.

The Pump 2 ON triangle icon will appear solid on the display when Pump 2 is running at high speed.



#### Pump 3 (On/Off Button) (Optional)

Press the Pump 3 key to turn Pump 3 on High speed. A second press will turn Pump 3 off. If Pump 3 is left on, it will automatically shut off 20 minutes after it has been started.

The Pump 3 ON triangle icon will appear solid on the display when Pump 3 is running at high speed.

**Note:** If Pump 3 is not present, then this switch is used only for the On/Off mode. A long press (5 seconds) on Pump 3 key is used to turn the entire system on or off. When power is applied to the unit, it is "On" by default.



When the system is "Off", all outputs are turned off for 30 minutes and the display shows "OFF" for at least 10 seconds. The filter cycle, the Smart Winter mode (see pg 19) and the heater can't start during this time. All keys are disabled except the On/Off key to restart the system before the 30 minutes ends.

## Therapy Air Button (Optional)

Press the Therapy Air key to turn Therapy Air on. A second press will
turn Therapy Air off. If Therapy Air is left on, it will automatically shut
off 20 minutes after it has been started.

The Therapy air ON triangle icon will appear solid on the display when Therapy air is on.

### $\sum_{\alpha}$ Light Button

Press the light key to turn the light and fibre-optic starbar on. A second press will turn light and fibre-optic starbar off. If the light and fibre-optic starbar are left on, they will automatically shut off 2 hours after it has been started. If the spa is equipped with Northern Lights<sup>TM</sup>, the different lighting sequences can be changed by pressing the light key on and off repeatedly.

The light ON triangle icon will appear solid on the display when the light and fibre-optic starbar is on.

#### To Program the Duration of the Filtration Cycles:

The system will automatically perform four filtration cycles per day, 6 hours apart. During a cycle, the following sequence is executed:

- \* Pump 2 and blower start at high speed for 1 minute
- \* Pump 1 then starts and runs at low speed for the preset number of hours;
- \* Ozone output is turned on (optional)

To set the duration of the filtration cycles (the amount of time Pump 1 will be on), follow this procedure:

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Press on the Filter Cycle key. The display will show Fd XX where XX represents the number of hours Pump 1 will be operating at low speed.



Use the Up & Down arrow keys to change the number of hours. 00 = no filtration 01 = 1 hour/cycle 02 = 2 hour/cycle



Press the filter cycle key again to display the number of cycles (FF) in a 24 hour period. You can select from 1 cycle to 4 cycles per day. The Filter Cycle triangular icon will appear on the display when a filter cycle is on.

#### **Overtemp During Filter Cycle**

In order to prevent excessive water temperatures due to long Filter cycles during warm weather, the system has a special safeguard.

If the water temperature exceeds the set point by more that  $1^{\circ}$ C, the system will cancel the Filter cycle and the Filter cycle icon will blink for the remainder of the filter cycle. The Filter cycle icon blink pattern will be: ON for 1/2 second, OFF for 1/2 second, ON for 1/2 second, and then finally OFF for  $1^{1}/_{2}$  seconds. This sequence will then repeat. The filtration cycle will automatically reset itself once the water temperature falls below the setpoint.

#### Filter Cycle Suspension

During a Filter cycle, if an accessory (a pump, the blower, or the light) is used manually, the Filter cycle is suspended the time the accessories are used. Once all accessories are turned off (whether manually or by the built-in timer), the Filter cycle remains suspended for an extra 40 minutes. When a Filter cycle is suspended, the Filter cycle icon will blink.

#### Smart Winter Mode

This system prevents the water from freezing in the pump plumbing. If at any time the temperature goes below 16°C, the system activates the winter mode every hour for the next 24 hours. (even if the temperature returns above 16°C). In this mode, the system will start all pumps for 1 minute to circulate warmer water in the plumbing. When the pumps are running because of this protective feature, the filter cycle ICON on the display will blink.

