



## 16.0 Troubleshooting - Display Messages

There are a number of unique functions designed into your Sundance hot tub to protect it from damage and/or to aid in troubleshooting. Following is a listing of all the possible messages along with their meanings:

### MESSAGE

### MEANING

**OH**



**WARNING: RISK OF HYPERTHERMIA (OVER-HEATING) CAUSING SEVERE INJURY, BURNS, OR WELTS.**

Overheat Protection (Heater is deactivated, filter/circulation pump is activated). Water temperature is above acceptable limits. **DO NOT ENTER THE WATER!** Remove hot tub cover to speed cooling. See "Water is too hot" (page 65). If condition persists, contact your Sundance Spas dealer or qualified service technician.

**COOL**

If the hot tub water is more than -7°C cooler than the temperature setpoint, jets pump #1 and heater will automatically activate to provide freeze protection. The hot tub will stay in this mode until the water temperature reaches 15 degrees below the set temperature. No corrective action is necessary.

**FLO\***

FLOW SWITCH (Heater is deactivated. The filter/circulation may also be deactivated). Proper flow of water is inhibited or a flow switch has malfunctioned. Check for proper water level and for clogged filter (pages 53-54). Contact your Sundance Spas dealer or qualified service technician.

**\*Note:** This message can also appear if the pump has not regained prime after the hot tub has been drained and refilled. If you suspect that this is the case, see the instructions on page 64 under "pump does not operate and icon does".

**HOT**

Circuit board temperature has exceeded acceptable limit. This message will disappear when the circuit board temperature drops below acceptable limit. If condition persists, provide shade for equipment side of hot tub.

**ICE****FREEZE PROTECTION**

A potential freeze condition has been detected. No action is required. Jets pump(s) operate until the hot tub is out of danger.

**Note:** This error commonly occurs when the hot tub is first filled because tap water is often very cold.

**PF**

Power failure. Power fluctuation in the secondary power line is causing the DC voltage to be low. Try to reset power to spa. If the error returns, contact your Sundance Spas dealer or qualified service technician. Due to a difference in software the "PF" error does not occur for the Maxxus model.

**PnL**

Communication between the control panel and/or remote control panel and circuit board is faulty. Contact your Sundance Spas dealer or qualified service technician.

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**WARNING: RISK OF HYPERTHERMIA (OVER-HEATING) CAUSING SEVERE INJURY, BURNS, OR WELTS.**

"WATCHDOG" (hot tub is deactivated). Water temperature is above acceptable limits. **DO NOT ENTER THE WATER!** Remove hot tub cover to speed cooling. A problem has been detected which could cause damage to the hot tub or its components. Contact your Sundance Spas dealer or qualified service technician.

**Sn1**

OPEN SENSOR (heater disabled) or SHORTED SENSOR (hot tub is deactivated)

The high-limit temperature sensor is non-functional. This must be repaired only by an Sundance Spas dealer or qualified service technician.

**Sn3**

OPEN or SHORTED SENSOR (heater disabled)

The main temperature sensor is non-functional. This must be repaired only by an Sundance Spas dealer or qualified service technician.



**FLO2  
ICE2**

CLOSED or SHORTED FLOW SWITCH ON SYSTEM STARTUP (system disabled) Flow switch is non-functional. This must be repaired only by an Sundance Spas dealer or qualified service technician.

**blb**

UV bulb needs to be replaced. The message will flash between "blb" and the water temperature. Due to a difference in software the "blb" message does not occur for the Maxxus model.

### 17.0 Troubleshooting - Procedures

In the unlikely event your hot tub is not working the way you believe it should, please first review all the installation and operating instructions in this manual and check the message on the panel display; second, if you are still not satisfied it is working properly, please follow the appropriate troubleshooting instructions.

PROBLEM	PROCEDURE
None of the components operate ( i.e. pump, blower, light)	Check the control panel lights. 1. If there are letters or symbols displayed on the screen, refer to the previous section to determine meaning and action required. 2. If nothing appears on the screen: A. Check the household circuit breaker. B. Contact you Sundance Spas dealer or qualified service technician.
Pump does not operate and icon does	Depress JETS Button. 1. If no sound is detected or if a buzzing sound is detected, turn off power to the spa and contact your authorized dealer or qualified service technician. 2. If motor operates, but now water flows to jets: A. Pump may not be properly primed. See instructions below. B. Contact your Sundance Spas dealer or qualified service technician.

#### Pump Priming Instructions:

This method must be used for the jets pumps because these pumps are not connected to the main filter system in any way.

1. Turn off the power to the spa.
2. Remove the handle from the massage selector supplied by the pump you are priming.

3. Loosen the massage selector's cap slightly (counterclockwise), listening for the air to seep out.
4. Tighten the cap finger tight, replace the handle, and turn the spa's power back on.

**CAUTION:** If freezing conditions exist and pump is not operational, take measures to protect the system from freeze damage. See Section titled "Winterizing", page 58.

<b>PROBLEM</b>	<b>PROCEDURE</b>
Poor jet action (Figures F-K, pages 24-29)	<ol style="list-style-type: none"> <li>1. Make certain the jets pump is turned on.</li> <li>2. Check position of massage selectors.</li> <li>3. Open air control for selected jet system.</li> <li>4. Check for adequate water level.</li> <li>5. Check for dirty filter (pages 53-54).</li> </ol>
Water is too hot	<ol style="list-style-type: none"> <li>1. Reduce thermostat setting (page 18).</li> <li>2. Switch hot tub to "Economy" mode to turn heater on only during programmed filter cycles (page 48).</li> </ol>
No heat	<ol style="list-style-type: none"> <li>1. Check thermostat setting.</li> <li>2. Keep the cover in place while heating.</li> <li>3. If "heater on" indicator is lit but no temperature rise is experienced after a reasonable period of time, contact your Sundance Spas dealer or qualified service technician.</li> </ol>
Filter/circulation pump off	<ol style="list-style-type: none"> <li>1. Verify filter/circulation pump is programmed to run 12 hours a day (page 48).</li> <li>2. Filter/circulation pump cycle canceled by power interruption. Wait 24 hours for hot tub to reset or press select button for manual activation.</li> <li>3. Hot tub water is warmer than 95°F (35°C) and two degrees warmer than the set temperature. The "Summer Logic" safety feature has activated. See note on page 49 for details.</li> </ol>

Should checking the above steps fail to correct the problem, please call your authorized dealer so that he may arrange service.

Sundance builds the best hot tubs in the industry. Nonetheless, we are always striving to improve the quality and features of our products. Your input as a Sundance hot tub owner is a cherished part of this process. If you have any comments or suggestions, or if you wish to be informed on any new products for your hot tub, please write to us.

**CONGRATULATIONS** on your good taste and welcome to the happiest and most relaxed family in the world!