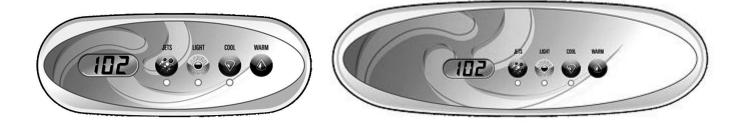# 1 Pump Operation Guide For Systems with Software v41 only.

Initial Start-up

Your spa will enter Priming Mode (Pr) when it is energized. **During Priming Mode, press "Jets" button repeatedly and be sure the pump is free of air.** Priming Mode lasts less than 5 minutes. Press "Warm" to exit. After Priming Mode, the spa will run in Standard Mode (see Mode section).

Pump 1 low-speed is responsible for heating and filtration and will be referred to simply as the pump.
In multi-button sequences, if the buttons are pressed too quickly in sequence, they may not register.
Low speed pump will run every 30 minutes from 2 to 5 minutes to check the tubs water

Temp Control (80°F - 104°F / 26°C - 40°C)

The last measured water temperature is constantly displayed. The water temperature displayed is current only when the pump has been running for at least 1 minute. To display the set temperature, press "Warm" or "Cool" once. To change the set temperature, press a temperature button again before the display stops flashing. Each press of "Warm" or "Cool" will adjust the set temperature. After three seconds, the display will stop flashing and begin to display the current spa temperature.

Jets

Press "Jets" to turn the pump on or off, and to shift between low and high speeds. If left running, the pump will turn off after a preset length of time of 2 hours for low speed and 15 minutes for high speed. Low speed may run automatically at times, during which it cannot be deactivated from the panel, but high speed may be operated. The ozone generator (if installed) will activate anytime low speed is running.

Light

Press "Light" to operate the spa light. Turns off after 4 hours.

Mode (The mode option has been disabled at the factory and will be locked into standard mode.)

Mode is changed by pressing "Warm" or "Cool" then "Light". Some tubs will have the modes disabled from the factory.
Standard Mode maintains set temperature. St will be displayed momentarily when you switch into Standard Mode.
Economy Mode heats the spa to the set temperature only during filter cycles. Ec will display when water temp is not current, and will alternate with water temp when the pump is running.
Sleep Mode heats the spa to within 20°F/10°C of the set temperature only during filter cycles. SL will display when water temp is not current, and will alternate with water temp when the pump is running.

Preset Filter Cycles

The first preset filter cycle begins 6 minutes after the spa is energized. The second preset filter cycle begins 12 hours later. Filter duration is programmable for 1, 2, 3, 4, 5, 6, 7, or 8 hours. The default filter time is 1 hour. To program, press "Warm" then "Jets." Press "Warm or Cool" to adjust. Press "Jets" to exit programming.

Display Messages

Message	Meaning	Action Required
	No message on display. Power has been cut off to the spa.	The control panel will be disabled until power returns. Spa settings will be preserved until next power up.
--	Temperature unknown.	After the pump has been running for 1 minute, the current water temperature will be displayed.
HH	"Overheat" - The spa has shut down.* One of the sensors has detected 118°F/47.8°C at the heater.	**DO NOT ENTER THE WATER.** Remove the spa cover and allow water to cool. Once the heater has cooled, reset by pushing any button. If spa does not reset, shut off the power to the spa and call your dealer or service organization.
OH	"Overheat" - The spa has shut down.* One of the sensors has detected that the spa water is 110°F/43.5°C.	**DO NOT ENTER THE WATER.** Remove the spa cover and allow water to cool. At 107°F/41.7°C, the spa should automatically reset. If spa does not reset, shut off the power to the spa and call your dealer or service organization.
SA	Spa is shut down.* The sensor that is plugged into the Sensor "A" jack is not working.	If the problem persists, contact your dealer or service organization. (May appear temporarily in an overheat condition.)
Sb	Spa is shut down.* The sensor that is plugged into the Sensor "B" jack is not working.	If the problem persists, contact your dealer or service organization. (May appear temporarily in an overheat condition.)
Sn	Sensors are out of balance. If alternating with spa temperature, it may just be a temporary condition. If flashing by itself, spa is shut down.*	If the problem persists, contact your dealer or service organization
HL	A significant difference between temperature sensors has been detected. This could indicate a flow problem.	If the water level is normal, make sure all pumps have been primed. If problem persists, contact your dealer or service organization.
LF	Persistent low flow problems. (Displays on the fifth occurrence of HL message within 24 hours.) Heater is shut down, but other spa functions continue to run normally.	Follow action required for HL message. Heating capability of the spa will not reset automatically; you may press any button to reset.
dr	Possible inadequate water, poor flow, or air bubbles in detected in the heater. Spa is shut down for 15 minutes.	
dY	Inadequate water detected in heater. (Displays on third occurrence of dr message.) Spa is shut down.*	
IC	"Ice" - Potential freeze condition detected. * - *Even when spa is shut down, some equipment will turn on if freeze protection is needed.*	No action required. All equipment will automatically activate regardless of spa status. The equipment stays on 4 minutes after the sensors detect that the spa temperature has risen to 45°F/7.2°C or higher. An optional freeze sensor may be added to protect against extraordinary freeze conditions. Auxiliary freeze sensor protection is advisable is colder climates. See your dealer for details.
St	**Standard Mode** maintains set temperature. St will be displayed momentarily when you switch into Standard Mode.	This is not an error code. Mode is changed by pressing "Warm" or "Cool" then "Light".
Ec	**Economy Mode** heats the spa to the set temperature only during filter cycles. Ec will display when water temp is not current, and will alternate with water temp when the pump is running.	This is not an error code. Mode is changed by pressing "Warm" or "Cool" then "Light".
SL	**Sleep Mode** heats the spa to within 20°F/10°C of the set temperature only during filter cycles. SL will display when water temp is not current, and will alternate with water temp when the pump is running.	This is not an error code. Mode is changed by pressing "Warm" or "Cool" then "Light".

Warning! Shock Hazard! No User Serviceable Parts.

Do not attempt service of this control system. Contact your dealer or service organization for assistance.

Follow all owners' manual power connection instructions. Installation must be performed by a licensed electrician and all grounding connections must be properly installed.