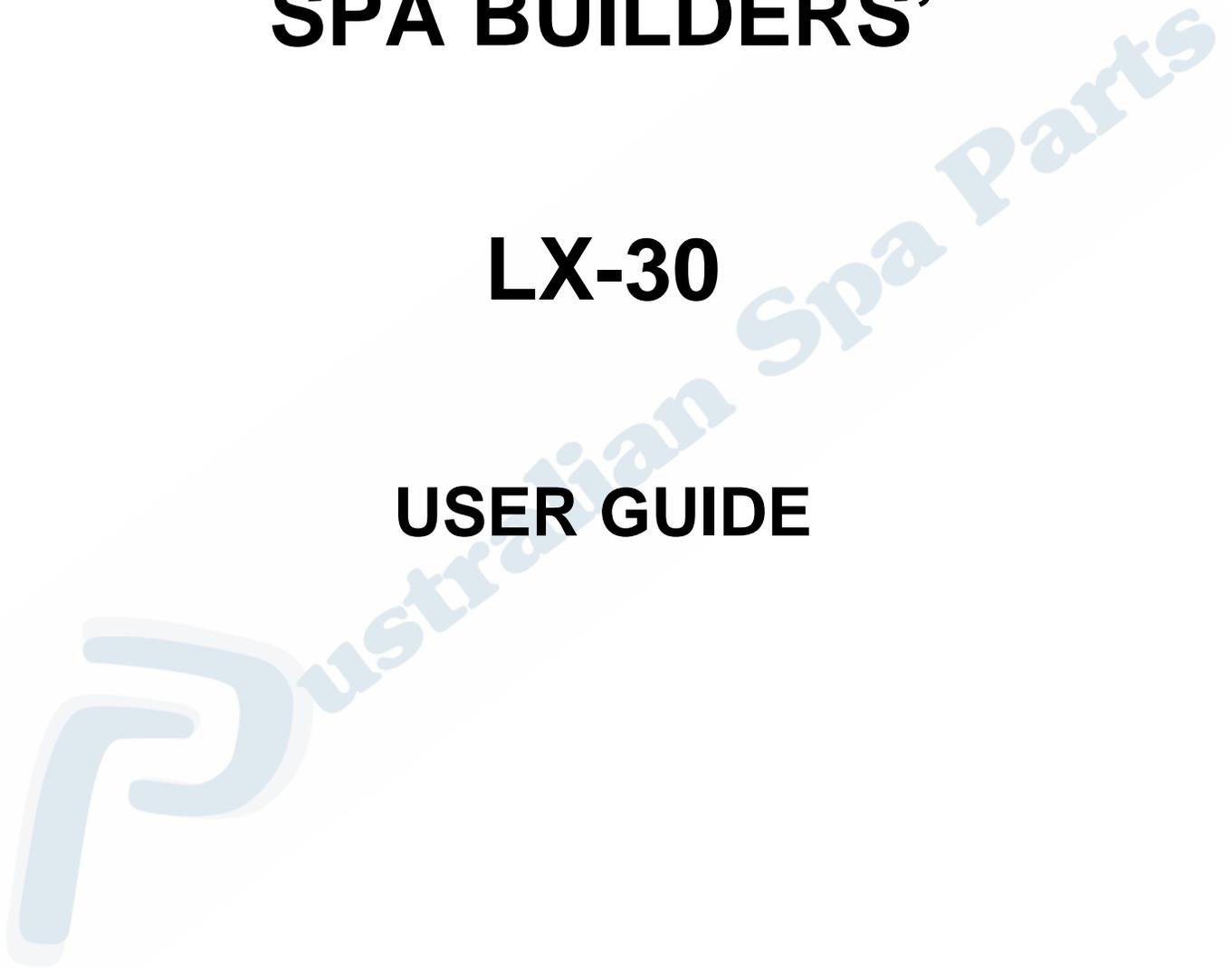


**SPA BUILDERS'**

**LX-30**

**USER GUIDE**



# PROGRAMMING

## TIME OF DAY and FILTER CYCLES.

### TIME OF DAY

Programming is done through the main control panel. The programming mode is entered by pressing DISPLAY, MODE, DISPLAY within three seconds. Subsequent pressing of DISPLAY will advance the programming sequence as follows:

1. TIME OF DAY: Hours + AM or PM. Adjust with WARMER and COOLER buttons. Press DISPLAY. (## : A/P)
2. TIME OF DAY: Minutes. Adjust with WARMER and COOLER buttons. Press DISPLAY. ( :##)

NOTE: System time of day clock is halted while programming. If Programming takes awhile, and accurate time is important, reset time again when programming is finished.

### FILTER CYCLE

Programming is done through the main control panel. The programming mode is entered by pressing CYCLE, SELECT, DISPLAY within three seconds.

1. Display reads: F1. This means you are ready to program filter cycle #1. Press DISPLAY. (F 1)
2. Time to start filter cycle #1: Hours + AM or PM. Adjust with WARMER and COOLER buttons. Press DISPLAY. (# #: A/P)
3. Time to start filter cycle #1: Minutes. Adjust with WARMER and COOLER buttons. Press DISPLAY. ( :# #)
4. Duration of filter cycle #1: Adjust in 15 minute increments with WARMER and COOLER buttons. Press DISPLAY.
5. ON or OFF: Heat on or heat off during filter cycle #1. Adjust with WARMER and COOLER buttons. Press DISPLAY.
6. Display reads: F 2. This means you are ready to program filter cycle #2. Repeat steps 2, 3, 4 and 5. (Actually steps 7 through 10 at this point.)
11. Display reads: F 3. This means you are ready to program filter cycle #3. Repeat steps 2, 3, 4 and 5. (Actually steps 12 through 15 at this point.)
16. Display reads: F 4. This means you are ready to program filter cycle #4. Repeat steps 2, 3, 4 and 5. (Actually steps 17 through 20 at this point.)
21. Display reads END. Pressing MODE will save any changes you have made and return the panel to the default display. (END)

NOTE: MODE button may be pressed at any time during the programming sequence to save what has been changed and return the panel to the default display. For example, to adjust for a different time zone, MODE button could be pressed immediately after step 1. It is not necessary to go through the entire programming sequence.

## OTHER CONTROL PANEL FUNCTIONS

**SET TEMPERATURE:** Press WARMER or COOLER once to enter set temperature mode. Each subsequent pressing within three seconds will increase or decrease the set point by one degree. After three seconds of no buttons being pressed, the display will return to the actual water temperature and the newly set temperature will be maintained.

**MODE:** The spa is either in the standard or the economy mode. Whichever mode it is in, pressing the MODE button will change it to the other mode.

**JETS:** First press - low speed pump  
Second press - high speed pump  
Third press - pump off  
(Jets time out - 20 minutes, unless filter cycle is on)

**AIR:** First press - high speed air blower  
Second press - low speed air blower  
Third press - air blower off  
(blower time out - 20 minutes)

**LIGHT:** First press - spa light on  
Second press - spa light off

**LOCK PANEL:** Press DISPLAY, MODE, WARMER, within three seconds.

**UNLOCK PANEL:** Press DISPLAY, MODE, COOLER, within three seconds.

**LOCK TEMPERATURE:** Press WARMER or COOLER to enter "set temperature mode." Before three seconds has elapsed, initiate the lock sequence - DISPLAY, MODE, WARMER. (Lock sequence must be completed within three seconds.)

**UNLOCK TEMPERATURE:** Same as unlock panel - DISPLAY, MODE, COOLER, pressed within three seconds.

NOTE: Locking the panel locks out everything except the panel's ability to accept the unlock sequence. "Everything" includes temperature lock. If temperature lock is executed first, and then the panel lock is executed, the panel lock overrides the temperature lock. Only one panel unlock sequence is required to unlock both the panel and any overridden temperature lock.

## ECONOMY AND STANDARD MODES

Economy and Standard modes are mutually exclusive, one or the other will be active.

**ECONOMY MODE:** If there is no manual operation of the jets or air, the spa turns on automatically only during filter cycles. Heater operates only if programmed to be on during the filter cycle. If any combination of the jets or air (except if both jets are on high speed) is manually operated, the spa control acts as if it is in the STANDARD MODE, i.e. if the thermostat calls for heat, the spa will heat. In the ECONOMY MODE, the "ECONOMY" icon will be lit.

**STANDARD MODE:** Spa maintains the water temperature at the set temperature. Low speed pump and heater come on automatically as needed to keep water temperature within one degree of the set temperature. When the set temperature is reached, the heater will turn off followed by the low speed pump turning off thirty seconds later. The filter cycles will proceed as programmed with the heater being activated if it is programmed to come on during filter cycles, and if the thermostat allows it. In the STANDARD MODE the "STANDARD" icon will be lit.

**BOTH JETS ON HIGH SPEED:** In either mode, with both jets on high speed, no heat is allowed.

## DISPLAY MESSAGES

### ILOC

Spa is deactivated. Sensor plug is not fully into its socket. Push sensor plug (J6) till it snaps into the socket.

### LOC

Spa control panel has been locked by the owner. Pressing DISPLAY, MODE, and WARMER within three seconds locks the control panel. Pressing DISPLAY, MODE, and COOLER within three seconds unlocks the control panel.

### HOLD

Command center is temporarily deactivated. Panel buttons have been pressed too often in too short of a time frame. Do not press any panel buttons for thirty seconds. The command center will automatically return to normal operation.

### HOT

The thermistor on the circuit board has detected an extreme high temperature. The air blower comes on, pulling air through the equipment bay to help cool.

### FLO

Heater and pump are deactivated. Either the proper flow of water is inhibited or the pressure switch has malfunctioned. The pressure switch is monitored for correct action each time the pump is started and stopped. For example, if the pump is started in low speed, the switch must come on and remain on. If the pump is switched to high speed, the low speed pump stops, water stops flowing, and the flow switch must open. After the flow switch opens, the high speed pump comes on and the flow switch must close again. The owner's manual suggest checking all conditions which could inhibit water flow such as flow valves, water level, and clogged filters. The technician should check the pressure switch after verifying that no physical obstruction to the water flow exists.

### ICE

Potential freeze condition (45 degrees) detected. Low speed pump stays on until danger of freezing passes (65 degrees.) Heater comes in extreme conditions (40 degrees.)

### Sn1

Heater is deactivated. High-limit sensor non-functional.

### Sn3

Heater is deactivated. Main temperature sensor is non-functional.

### OH

Heater is deactivated. Overheat condition exists. Consult "Troubleshooting" section of Owners Manual.

### ---- (Dashed line) and no back light for LCD

Spa is deactivated. Problem detected which can cause damage to components (watchdog.)

**Pnl**

Faulty communication between command center and circuit board. Broken cable or connector not properly plugged into circuit board.

