

APOLLO 11 CONTROL SYSTEM INSTRUCTION SET

START UP

When power is first applied to the spa, the system will go through a check to verify that the sensors, pump, and heater are working. **If the water does not move when the pump comes on, or if you notice any other problems, abort the start up by pressing and holding the “JETS 1” button until the display reads “TEST.” Once in the test mode, press the temperature up button to abort the start-up and enter into FTR Only mode. Press the temperature down button to re-start the system. Press the Aux button to cycle the blower. Press the light button to see the temperatures from each sensor. Press the Jets 1 button to cycle pump 1. Press the Jets 2 button to cycle pump 2.**



On normal start-up, the system will determine how the spa was configured during installation. After the system completes this test, the system will enter its normal operating mode and display the day, time, and temperature (as show above). You can now set the temperature, time, day, and filter start time and heating mode. If there was a problem during the system check, the display will show one of the following messages: “SENSOR FAILURE” if the system finds a problem with one of the sensors, “HEATER” if it determines the heater is not working or “NO FLOW” if the system could not detect a working pump connected to the heater.

One reason for the system not detecting the heat pump is the pump may be air locked. This happens when the pump is on and there is little or no water flow visible in the tub. Try releasing the air from the pump and restarting the system.

HEATING

The default temperature setting is 80 degrees. The system will revert back to this temperature anytime power has been interrupted and reapplied. The maximum temperature setting is 104 degrees and the minimum set temperature is 60 degrees. You can change the temperature setting by pressing either the “UP” button or the “DOWN” button. Prior to pressing any buttons, the display will cycle between showing the day and time to showing the actual temperature of the water (assuming there is no special message to be displayed). When you press either the “UP” or “DOWN” button, the normal display will be interrupted to display the current temperature setting. Subsequent presses of the “UP” or “DOWN” button will increment or decrement the temperature setting. When the display shows the desired temperature setting, the new temperature will be set and the display will revert back to the normal display mode showing the day, time and temperature after 10 seconds. When the system is ready to heat, it will first turn on the heater pump. After one minute, the heater will come on and the display will cycle between displaying “HEATING” and the current water temperature. When the set temperature is reached the system will turn off the heater and the display will revert back to showing the day, time and temperature. The pump will continue to run for one minute and then turn off.

HEAT MODES

There are three different heating modes for the control system: standard, economy, and weekend. If your tub is connected to 120 Volts, the system will not heat with pump 1 on high, pump 2 on, or if the blower is on.

STANDARD

The default heating mode for the system is standard mode. The system will revert to this mode anytime power is interrupted and reapplied. In standard mode, the system will turn on the pump and heater as needed to maintain the set temperature of the water. After one hour of inactivity, the system will enter into low cycle mode. In low cycle mode the spa will only turn on once every fifteen minutes unless, a button is pressed, the spa is in a filter cycle or any of the connected equipment is on.

ECONOMY

In economy mode, the system will only heat the water to maintain the set temperature during the filter cycle or if the temperature falls below 60 degrees.

WEEKEND

In weekend mode, the system will only heat the water to maintain the set temperature between Friday at 12:00 am and Sunday at 11:59 pm or if the temperature falls below 60 degrees.

FILTERING

The system will come on to filter for two hours a day at the same time both am and pm. The default filter start time is 12:00. The system will revert back to this time anytime power has been interrupted and reapplied.

CHANGING HEAT MODES, DAY, TIME, & FILTER START TIME

To change the **HEAT MODE**:

Press and hold "JETS1" button until the display reads "PROGRAM" (about 7 sec) then release the "JETS1" button and press and hold the "JETS2" button until the display shows the current **HEAT MODE** "STANDARD," "ECONOMY," or "WEEKEND." To change, press and release the "JETS2" button until the display shows the desired heat mode. When you are done, leave the topside control alone, and the mode will be set. The display will revert back to normal after 30 seconds.

To change the **DAY & TIME**:

Press and hold "JETS1" button until the display reads "PROGRAM" (about 7 sec) then release the "JETS1" button and press and hold the "JETS2" button until the display shows the current HEAT MODE "STANDARD," "ECONOMY," or "WEEKEND." Now, to change the:

- **DAY** -press and release the "JETS 1" button.
- **MINUTES** -press and release the "UP."
- **HOOR** -press and release the "AUX" button.
- **AM/PM** -press and release the "DOWN" button.

When you are done, leave the topside control alone, and the time will be set. The display will revert back to normal after 30 seconds.

To change the **FILTER START TIME** (the time the filter cycle starts):

Press and hold "JETS1" button until the display reads "PROGRAM" (about 7 sec) then release the "JETS1" button and press and hold the "JETS2" button until the display shows the current HEAT MODE "STANDARD," "ECONOMY" or "WEEKEND." To change, press and release the "LIGHT" button until the desired start time is displayed. When you are done leave the topside control alone and the filter start time will be set. The display will revert back to normal after 30 seconds.

USING THE TOP SIDE CONTROL

JETS 1

The “JETS 1” button controls pump 1, in most spas this pump is a two speed pump. The low speed is used for heating and filtering and the high speed for hydro massage. When you press the “JETS 1” button the system will cycle from pump 1 off to pump 1 on low to pump 1 on high -to pump 1 off.

“PUMP1 LO,” “PUMP1 HI,” or “P1 OFF” will briefly be displayed when the button is pressed. If the system is in a heating or filter cycle, the display will show “P1 OFF” even though the pump is on low. The pump will turn off when the heating or filter cycle completes. When the pump is turned on high or low, it will stay on for 30 minutes, and then it will automatically turn off unless it is heating or filtering in which case the pump will turn on low. If at start up the system detects that pump 1 is a one speed pump and it is the pump used for heating, the system will disable the pump 1 high feature and will only allow the pump to cycle between on low and off.

The “JETS 1” button is also used to program the spa. Holding the “JETS 1” button will result in entering into the program mode. If the program mode is entered, it will automatically exit after 10 seconds if no buttons have been pressed.

Tubs connected to 120 Volts If your tub is connected to 120 Volts, the system will not allow you to turn the pump on high while the spa is heating; you must either lower the temperature or switch the heat mode if you wish to use the pump in high speed.

JETS 2

The “JETS 2” button controls the pump 2 if your spa is equipped with one. The pump 2 is only a one speed pump function regardless of whether the pump is a single speed or a two speed pump. Pressing the “JETS 2” button will cycle the pump on and off. “PUMP2 ON” or “P2 OFF” will briefly be displayed when the button is pressed. The pump will stay on for 30 minutes and then it will automatically turn off.

BLOWER

The “AUX” button controls the blower or pump 3 if your spa is equipped with one. The pump 3 is only a one speed pump function regardless of whether the pump is a single speed or a two speed pump. Pressing the “AUX” button will cycle the blower and pump on and off. “BLWR ON” or “BLWR OFF” will briefly be displayed when the button is pressed. The blower/pump 3 will stay on for 30 minutes and then it will automatically turn off.

LIGHT

The “LIGHT” button turns the light on and off, for tubs with fiber optic lights. Both the color wheel and the light will turn on and off. “LIGHT ON” or “LHT OFF” will briefly be displayed when the button is pressed. The light will stay on for 1 hour and then it will automatically turn off.

DISPLAY MESSAGES

HEATING will be displayed any time the heater is on.

FILTER will be displayed when the spa is in its filter cycle.

OVERHEAT will be displayed whenever the system detects water temperature over 112 degrees. When over heat occurs, the heater will turn off. The system will resume heating when the temperature falls below the set temperature. The system will enter FTR ONLY mode if the spa overheats three times in one hour. Pump failure is the most likely cause of the system displaying "OVERHEAT" or "NO FLOW."

FTR ONLY will be displayed when the system detects a failure with one of the heating safety components. The spa will filter to protect from freezing; however, the heater will not turn back on until the system is restarted. If FTR ONLY is displayed, you should call for service. The display will show the error message that caused the system to enter into FTR ONLY mode.

NO FLOW is displayed when there isn't adequate water flow through the heater. When this occurs the heater will turn off. Heating will resume after sufficient flow is detected. The spa will enter into FTR ONLY mode after three unsuccessful attempts to heat the water.

SENSOR FAILURE is displayed whenever the system reads an invalid sensor value; the spa will enter into FTR ONLY mode.

HEATER will be displayed when the system determines that the heater is not working, the system will enter into FTR ONLY mode.

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Apollo 11 Spa Control System