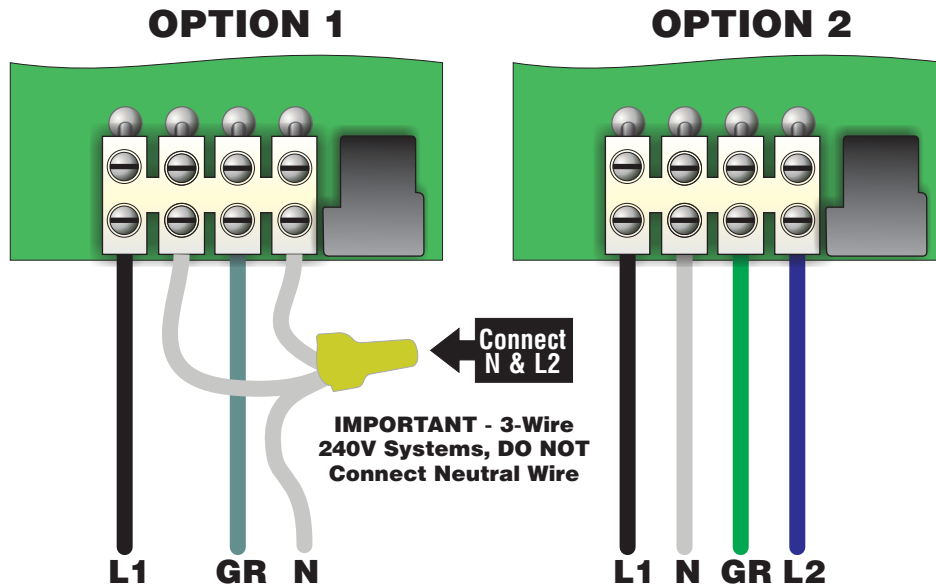


## 9230/6230 VOLTAGE CONNECTION

All Universal systems leave the factory configured for 120-Volt input power (Option 1).



### 120-VOLT ELECTRICAL SERVICE REQUIREMENTS:

Line 1, Neutral and Ground.

Note: For 120V operation Neutral & Line 2 **MUST** be connected for system to operate properly.

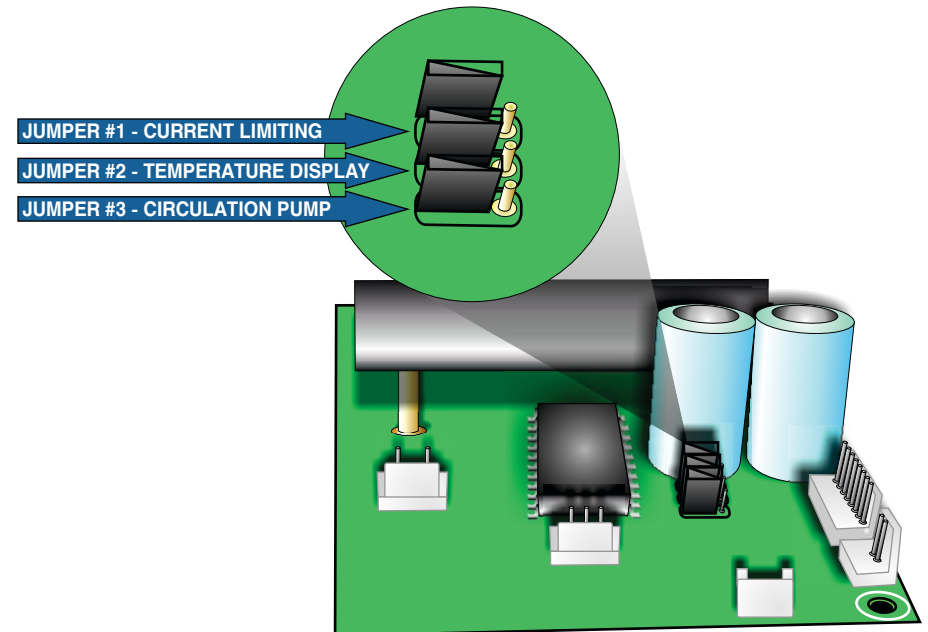
### 240-VOLT ELECTRICAL SERVICE REQUIREMENTS:

Line 1, Line 2, Neutral and Ground.

**IMPORTANT: Always refer to the product data label (located on top of control box) for specific electrical information.**

## 9230/6230 LOW LEVEL PROGRAMMING

It is possible to change the parameters of the system by positioning specific jumpers located on the system board (see illustration below).



### JUMPER 1 = Current Limiting:

**Position 1 - (High Current 240vac):** There is no current restriction. This allows the heater to operate with the pump in high speed.

**Position 2 - (Low Current 120vac):** The system will not turn the heater on when the pump is in high speed. The heater indicator will flash on the spaside to tell the user that there is a call for heat but the heater is not allowed to start.

### JUMPER 2 = Temperature Display:

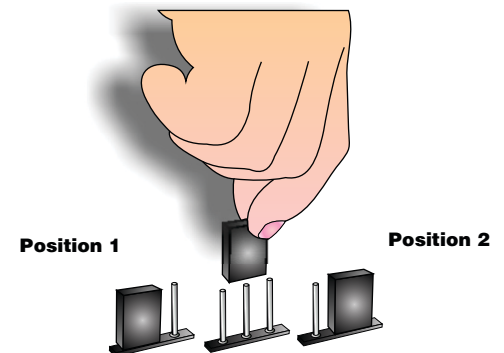
**Position 1 - Fahrenheit Degrees**

**Position 2 - Celsius Degrees**

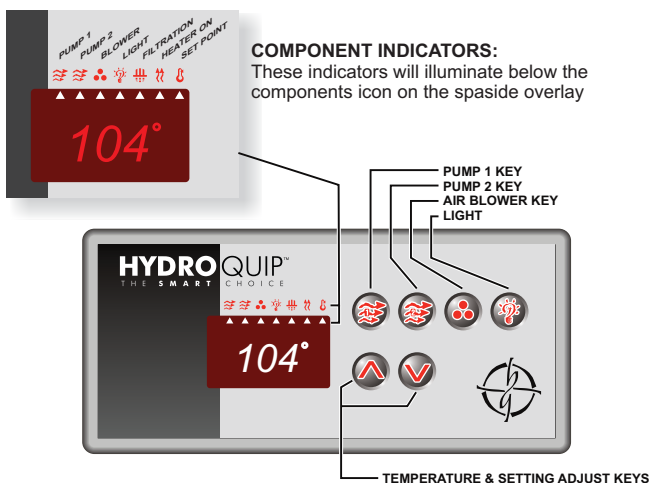
### JUMPER 3 = Circulation Pump:

**Position 1 - System without a Circ. Pump**

**Position 2 - System with a Circ. Pump**



## 9230/6230 - BASIC OPERATION



**PUMP KEY:** If the heater setting has been set above the actual water temperature, low speed will activate on its own as the water is heated. Press this key once to activate the low speed of the pump, press the key a second time to activate high speed and pressing it a third time will turn the pump off. The red indicator above the pump key will illuminate while the pump is on in high speed and flash in low speed. After 20-minutes the pump will shut off automatically unless done so manually. If a filter cycle is active, the "filter cycle" indicator will be illuminated and you will not be able to turn the pump off (the pump indicator WILL NOT be on during filtration).



**ACCESSORY KEY:** Press this key to turn Accessory (Pump 2 or Blower) on and off. After 20-minutes the accessory will shut off automatically unless done so manually. The red indicator above the Accessory key will illuminate while the accessory is on.



**LIGHT KEY:** Press this key to turn the Light on and off. The light will automatically shut off after 2 hours.



**TEMPERATURE SET KEY:** Press and hold the Temperature Set key to increase the temperature. Release, press and hold again to lower the temperature. The temperature can be adjusted in 1°F increments from 59°F to 104°F (5°C to 40°C). The new setting will remain on the display and the Temperature Program indicator will illuminate for 5-seconds to confirm the setting. The heater will activate when the temperature drops to 1°F below the set temperature. Heater will continue to be active until the temperature reaches 1°F above the set temperature. (The Heater On indicator will illuminate while the heater is on and flash when there is a call for heat and the heater has not yet been activated.)

## 9230/6230 - ERROR MESSAGES

To assist the user in identifying problems with the spa, the system will display an error message. These messages will be helpful when communicating with your local dealer or qualified technician if a problem should arise.

flc

**PRESSURE or FLOW SWITCH ACTIVATED** - This error will be displayed only when the pump is not activated. Cycle the pump through Low & High speeds then off. If the error does not clear this is an indication that the pressure or flow switch is activated with no water flow.

Contact your local spa dealer

flO

**PRESSURE or FLOW SWITCH NOT ACTIVATED** - This error will be displayed while the pump is running. Cycle the pump through Low & High speeds. If the error does not clear this is an indication that the pressure or flow switch has not activated although there is water flow.

Contact your local spa dealer

Prr

**TEMPERATURE SENSOR MALFUNCTION** - This error will occur when a problem with the temperature sensor exists. This error may also occur if the system is activated while the water temperature is below 35°F.

Contact your local spa dealer

OH

**OVERHEAT or HIGH-LIMIT PROTECTION** - There are three(3) stages of over-temperature:

1 - The spa water has exceeded 112°F. The heater, pump and accessory will be deactivated until the water cools to 109°F. *Be sure to check the actual water temperature with an accurate thermometer.*

2 - The spa water has exceeded 119°F. The heater will deactivate while the pump and accessory will still operate. *The blower (if equipped) can be activated to help cool the water. **WATER MUST BE BELOW 119°F AND POWER MUST BE RESET TO CLEAR THE "HL" ERROR***

*A dirty spa filter can also cause a restricted flow of water, be sure the filter is cleaned regularly and ensure all water shutoff valves are open.*

*If the system has been operating normally until now, the pump may be overheating the spa. Refer to "Programming Filtration" on page X and reduce the duration and/or number of cycles per day.*

3 - If you've eliminated items 1 & 2 as problems, the high-limit sensor may have malfunctioned.

Contact your local spa dealer

free

**FREEZE PROTECTION** - There are two(2) levels of freeze protection integrated into the system.

**SMART WINTER MODE**, this mode will activate any time the temperature falls below 59°F. This mode will be active for a period of 24-hours. In this mode, if a pump has not been activated in the last 2 hours, the system will automatically turn it on for 1-minute to prevent freezing. The "Filter Cycle" indicator will illuminate while this mode is active.

2 - If the spa water temperature drops below 49°F, the heater & pump will be activated until the water temperature reaches 50°F. **While freeze protection is active no other functions will be possible.**



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