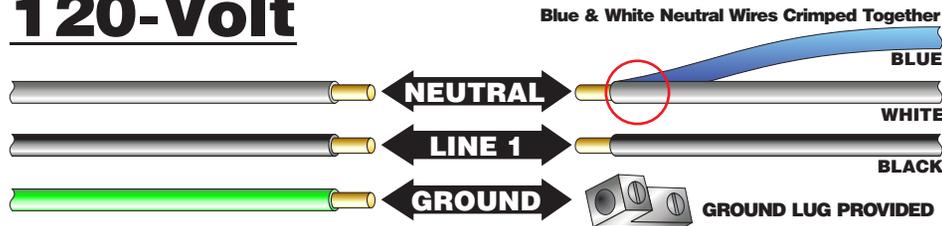


## 6100/7100 VOLTAGE CONNECTION

Use the illustrations and instruction below to connect your input power wiring. Always refer to the wiring diagram provided with your control (located inside the hinged cover) prior to connecting any wires.

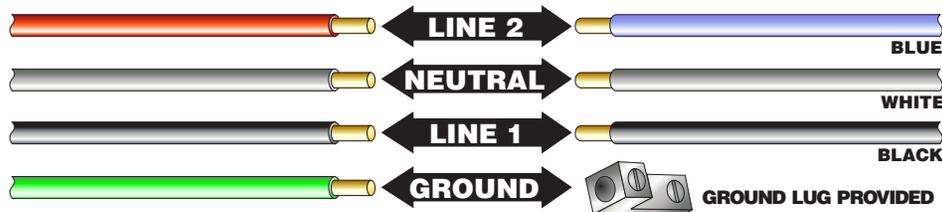
**WARNING - Secure wires as defined by the NEC and in compliance with any local codes in effect at the time of installation. The system data label contains specific electrical information required for installation. A wiring diagram is provide with every system and is located inside the control systems hinged cover. The wiring diagram may contain "manufacturers notes" vital to your particular installation. Typical 120-Volt and 240-Volt installations are depicted below.**

### 120-Volt



- Connect input Neutral to White Wire (crimped together with Blue wire).
- Connect Line 1 to Black Wire.

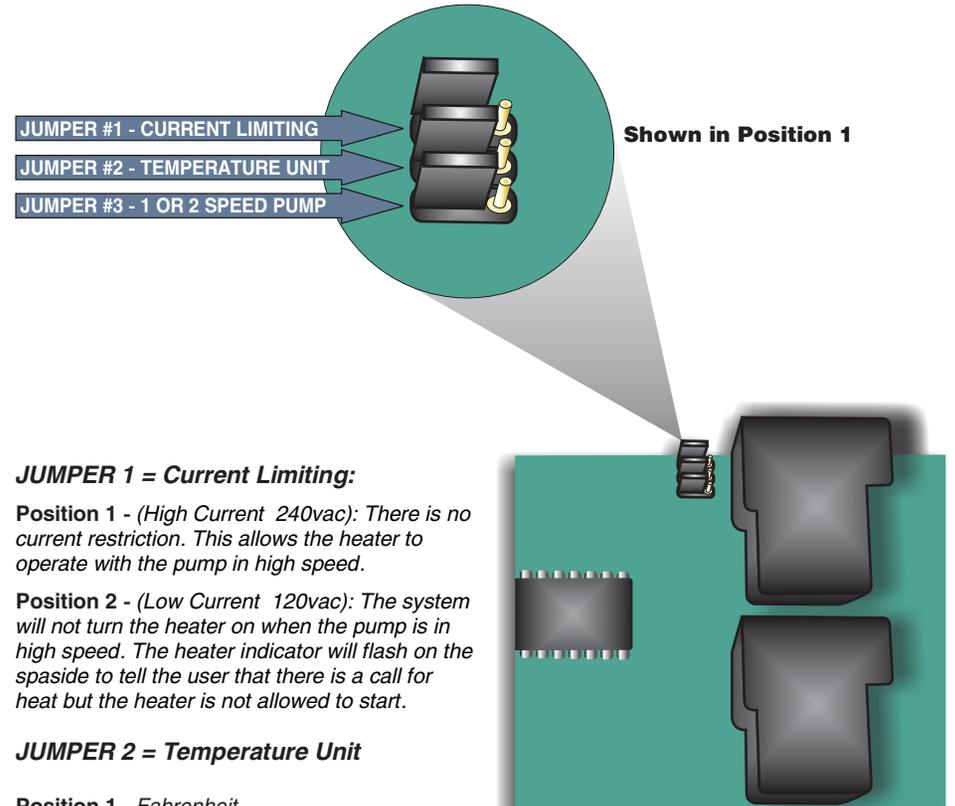
### 240-Volt



- Connect Line 2 to Blue Wire.
- Connect input Neutral to White Wire
- Connect Line 1 to Black Wire.

## 6100/7100 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 Unit

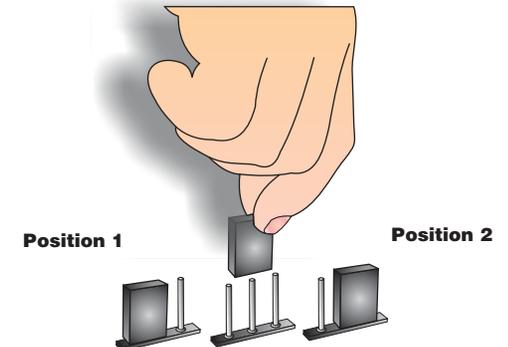
Position 1 - Fahrenheit

Position 2 - Celsius

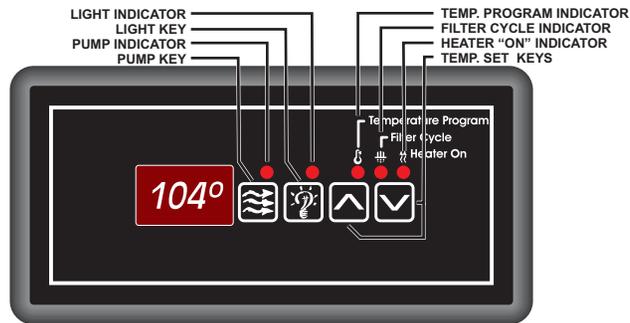
#### JUMPER 3 = 1 or 2 Speed Pump:

Position 1 - Dual Speed Pump

Position 2 - Single Speed Pump



## 6100/7100 - BASIC OPERATION



**Pump Key:** Press this key once to turn Pump on. A second press will turn it off. For dual speed pump operation; Press this key once to turn Pump onto Low speed, press this key a second time to turn Pump onto High speed, a third press will turn the pump off. A built-in timer will shut the pump off after 20 minutes of operation unless done so manually. The Pump indicator will illuminate while the pump is running in High speed and flash while it is in Low speed. If the Filter Cycle indicator is illuminated, a filtration cycle has begun and you will not be able to turn the pump off.



**Light/Enter Key:** Press this key to turn the light on, a second press will turn the light off. If equipped with Fiber Optic: Press this key once to show "L1". Use the Up Arrow key to turn the light onto High, Low and Off. Press the light key a second time, "F1" will appear. Use the Up Arrow key to turn the Fiber Optic wheel and light on, Fiber Optic wheel off with light on and both Off. The light will automatically shut off after 2 hours.



**Temperature Set Keys:** Press the Up Arrow key to increase the desired temperature. Press the Down Arrow key to decrease the desired 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 for 5 seconds as a confirmation. During this time the Temperature Program indicator will be illuminated to let you know this is the desired and not the actual temperature. After 5 seconds the display will return to the current temperature reading. When the temperature drops to 1°F below the set temperature, the heater will be turned on until the temperature is 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.

**Power Loss:** Any interruption of power will cause the unit to reset and revert to the default programming of 100°F set point temperature and 2, 2-hour filtration cycles.

## 6100/7100 - ERROR MESSAGES

**flc**

To prevent damage to your equipment, a pressure or flow switch monitors water flow. If this error appears while there is no pump(s) operating, turn the pump(s) on. If the error went away this indicates that the pressure or flow switch was activated although there was no water flow. **Contact your local dealer**

**fLo**

If this error appears while the pump(s) is operating, turn the pump(s) off. If the error clears this indicates that the pressure or flow switch was not activating while there was water flow. **Note:** A dirty filter limiting the water flow will also cause this error message to appear.

When the pump is turned on, there is a 7-second delay before the system will start to auto check the pressure or flow switch.

**Contact your local dealer**

**Prr**

This error will appear if there is a problem detected with the temperature sensing device.

**Contact your local 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 Operation manual to reduce the duration and/or number of filter 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**

There are two(2) levels of freeze protection integrated into the system.

1 - 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.**

**FOR MORE DETAILED INFORMATION, REFER TO OWNERS OPERATION MANUAL**



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