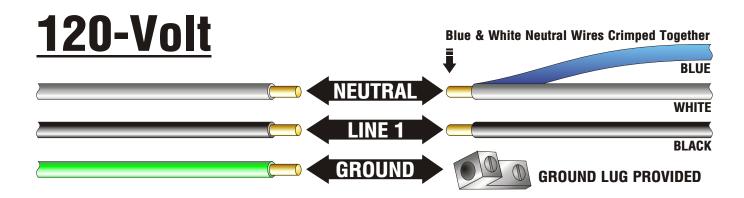
### **ECO-1/5 VOLTAGE CONNECTION**

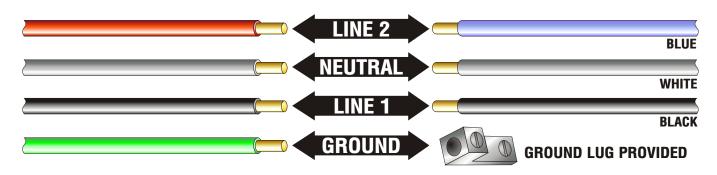
Use the illustrations and instruction below to connect your input power wiring. Always refer to the wiring diagram provided with your control (located inside the hinged cover) prior to connecting any wires.

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.



- Connect input Neutral to White Wire (crimped together with Blue wire).
- Connect Line 1 to Black Wire.
- Connect Ground to Ground Lug provided inside control box.

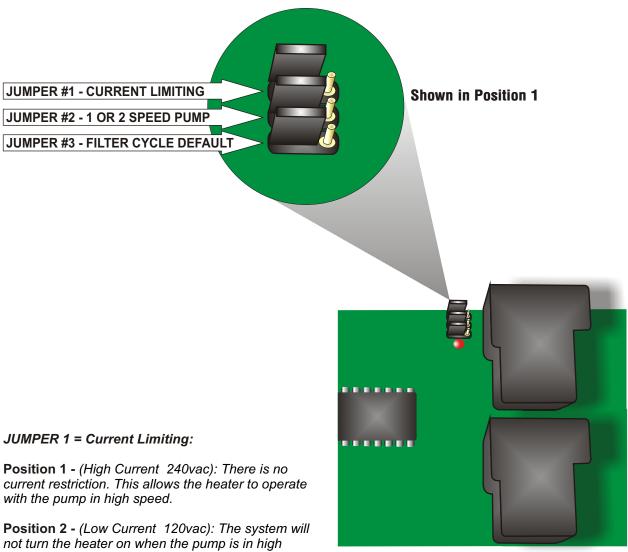
# 240-Volt



- Connect Line 2 to Blue Wire.
- Connect input Neutral to White Wire (crimped together with Blue wire).
- Connect Line 1 to Black Wire.
- Connect Ground to Ground Lug provided inside control box.

## **ECO-1/5 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).



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 = 1 or 2 Speed Pump:

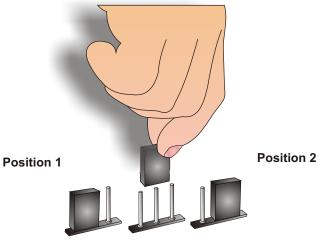
Position 1 - Dual Speed Pump

Position 2 - Single Speed Pump

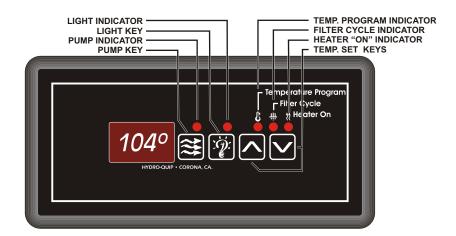
### JUMPER 3 = Filter Cycle Default:

Position 1 - 60 minutes (Once Per Day)

Position 2 - 180 minutes (Twice a Day)



### **ECO-1/5 SERIES - BASIC OPERATION**

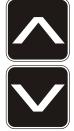




**Pump Key:** Press this key once to turn Pump on. A second press will turn it off. For dual speed pump operation; Press this key once to turn Pump onto Low speed, press this key a second time to turn Pump onto High speed, a third press will turn the pump off. A built-in timer will shut the pump off 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 95°F set point temperature and 2, 2-hour filtration cycles.

### **ECO-1/5 SERIES - ERROR MESSAGES**



Three Flashing Dots with Pump Off: To prevent damage to your equipment, Hydro-Quip installs a pressure or flow switch. If 3 flashing dots appear below the temperature display while there is no pump(s) operating, turn the pump(s) on. If the 3 flashing dots went away this indicates that the pressure or flow switch was activated although there was no water flow.

Contact your local dealer



Three Flashing Dots with Pump On: If 3 flashing dots appear below the temperature display while the pump(s) is operating, turn the pump(s) off. If the 3 flashing dots went away this indicates that the pressure or flow switch was not activated although 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



OR



**Temperature Sensor:** If the display shows a constant 32°F or 125°F and this is not the actual temperature or the displayed temperature greatly differs from the actual spa water temperature, a problem with the water temperature sensor has occurred.

Contact your local dealer



**High Temperature:** If the water temperature exceeds 119°F, the Hi-Limit protection will be turned on and the heater will be deactivated until the water has cooled to 110°F. 3 flashing dots will appear below the elevated temperature. Power to the system must be cycled off then on to reset the system.

Contact your local dealer

**Freeze Protection & Winterizing:** When freezing weather and/or power losses are expected, contact your local spa dealer for freeze protection or winterizing recommendations for both the spa and the equipment system. Freeze related damage is not covered by the Hydro-Quip warranty.

FOR MORE DETAILED INFORMATION, REFER TO OWNERS OPERATION MANUAL

