U-SERIES - ERROR MESSAGES

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 is pump 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-temperture:

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.*

HI

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 "Programing 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.

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.**

HYDROQUIP™
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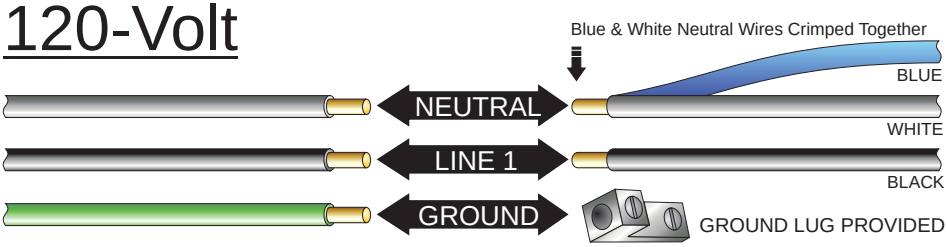
U-SERIES VOLTAGE CONNECTION

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.

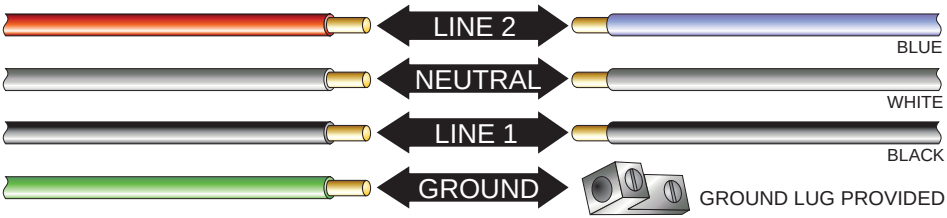
WARNING - Secure wires as defined by the NEC and in compliance with any local codes in effect at the time of installation. The system data label contains specific electrical information required for installation. A wiring diagram is provide with every system and is located inside the control systems 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.*
- *Connect Ground to Ground Lug provided inside control box.*

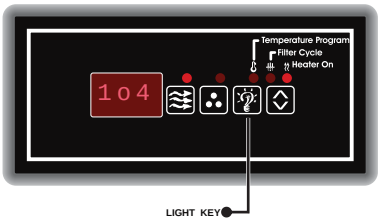
240-Volt



- *Connect Line 2 to Blue Wire.*
- *Connect input Neutral to White Wire.*
- *Connect Line 1 to Black Wire.*
- *Connect Ground to Ground Lug provided inside control box.*

U-SERIES LOW LEVEL PROGRAMMING

The Low Level settings such as Current Settings (limiting heater activation for low amperage systems), Single or Dual Speed Pump, Accessory (pump or blower) Configuration, Circulation Pump, Temperature Display (Fahrenheit or Celsius) and Light Configuration may be accessed directly from the spaside control.



1) **Make sure the pump is turned off when the programming is performed or a FLC error will appear after programming and require a power reset to clear.**

2) **Press and hold the Light Key for approximately 20 seconds, the first parameter will appear.**

3) **Press the Light Key to change to the next parameter.**

4) **Use the Up/Down Arrow Key to adjust the setting.**

5) **Press the Light key repeatedly after the chosen setting is changed to save the setting and exit the low level programming**

Current Limiting:
HC = High Current (No Current Limiting)
LC = Low Current (heater will turn off with high speed pump or accessory operation)*

Pump 1 Configuration:
SP 1 = Single Speed
SP 2 = Dual Speed *****

Accessory Configuration:
BL 0 = Not Installed
BL 1 = Single Speed Pump 2 or Blower Installed *****

Circulation Pump:
CP 0 = No Circulation Pump*
CP 1 = Circulation Pump

Temperature Display:
Tu F = Fahrenheit *****
Tu C = Celsius

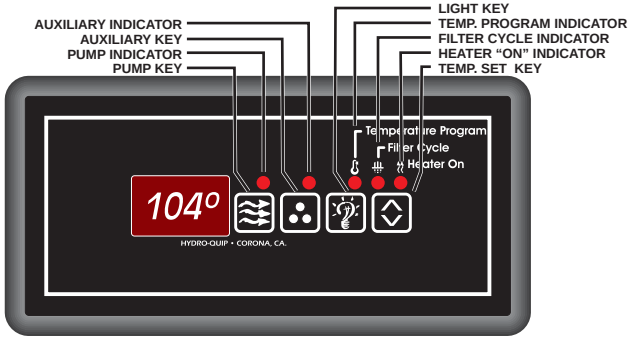
Light Configuration:
LI 1 = Single Intensity (On/Off) *
LI 2 = Two Intensities

* notes default setting

Water Level Sensor:
LS 0 = Not Active*
LS 1 = Active

Note: If the error code "FLC" appears after programming simply turn the power off then back on to the control unit and the error should clear.

U-SERIES - BASIC OPERATION





Pump 1 Key: *Press this key once to turn Pump 1 onto Low speed, press this key a second time to turn Pump 1 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 1 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.*



Pump 2 Key: *Press this key once to turn Pump 2 onto Low speed, press this key a second time to turn Pump 2 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 2 indicator will illuminate while the pump is running in High speed and flash while it is in Low speed.* **** see note***



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/Down Arrow key to turn the light onto High, Low and Off. Press the light key a second time, "F1" will appear. Use the Up/Down 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 Key: *Press the Up/Down Arrow key to increase the desired temperature, release and press again 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.*