

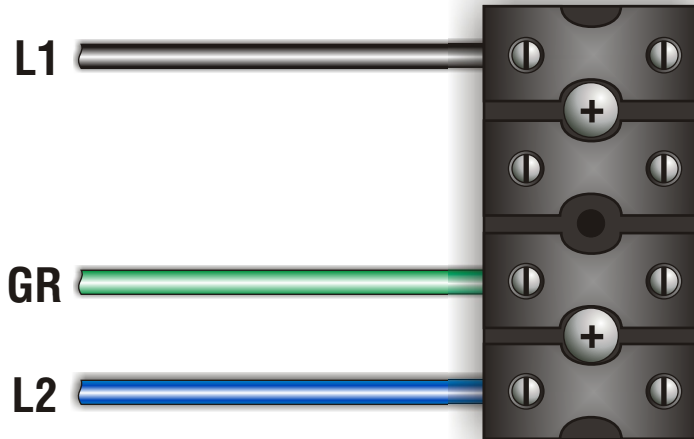
# 8600 SERIES HC - INCOMING POWER WIRING

For high current models an additional terminal block has been provided. 4-Wire 240V service must be provided to the circuit board terminal block as well as 3-Wire 240V service provided for the High-Current terminal block. Refer to illustrations below:

## **High-Current**

240-Volt electrical service requires:

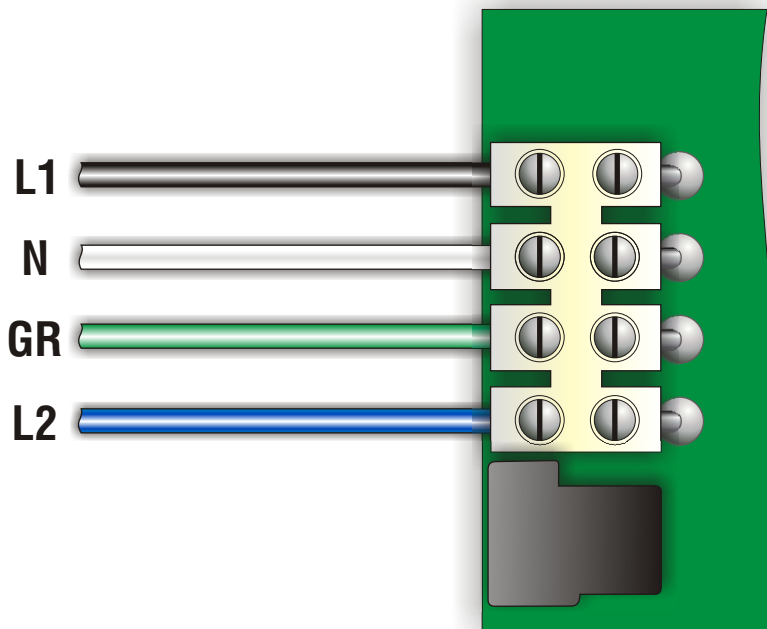
Line 1, Line 2 and Ground.



## **Circuit Board Connection**

240-Volt electrical service requires:

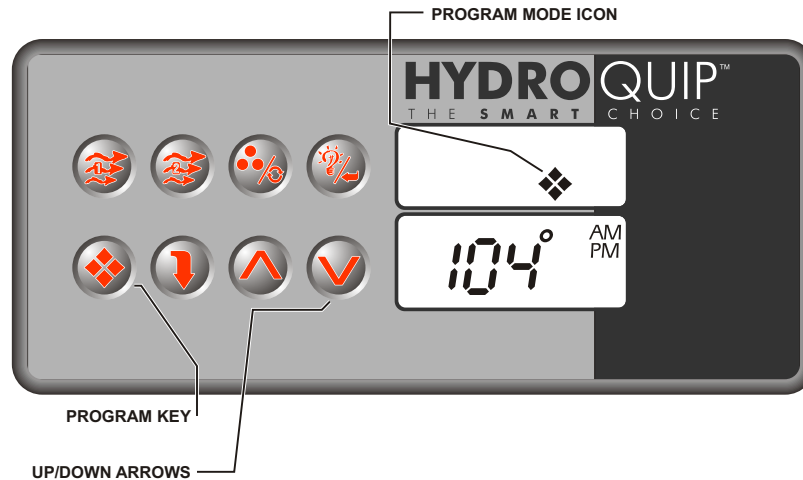
Line 1, Line 2, Neutral and Ground.



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

# 8600 SERIES HC - DELUXE LOW LEVEL PROGRAMMING

It is possible to change the parameters of the system from the spaside control. All circuit presets have been programmed at the factory. The only settings to be adjusted will be Current Limiting and/or Fiber Optic settings. Follow the procedures described below to adjust these settings.



- Press and hold the Program key for approximately 20-seconds. The Program Icon will appear in the upper display window (the Program & Up/Down Arrow keys will be the only active keys during programming).
- Once the Program Icon appears, "P1 X" (X representing the current setting value) will be displayed in the lower display window.
- Press the Program key repeatedly until "P3 X" appears in the lower display window. Use the Up/Down Arrow keys to adjust the setting value (see parameter setting below).
- Continue to press the Program key until "AU X" appears in the lower display window. Use the Up/Down Arrow keys to adjust the setting value (see parameter setting below).
- Continue to press the Program key until "Cu X" appears in the lower display window. Use the Up/Down Arrow keys to adjust the setting value (see parameter setting below).
- Press the Program key one last time to exit the programming mode and reset the spaside control and save the new program settings. The display will revert back to the standard time/temperature mode.



## Pump 3

Display: P3 X

Value of X: 0 = Not Installed  
1 = Single Speed



## Current Limiting

Display: Cu X

Value of X: 0 = Low Current (Heater Off w/High Speed Pump or Blower)  
1 = High Current (No Limitations)



## Fiber Optic

Display: AU X

Value of X: 0 = Not Installed  
1 = EXM5 Fiber Optic Interface installed



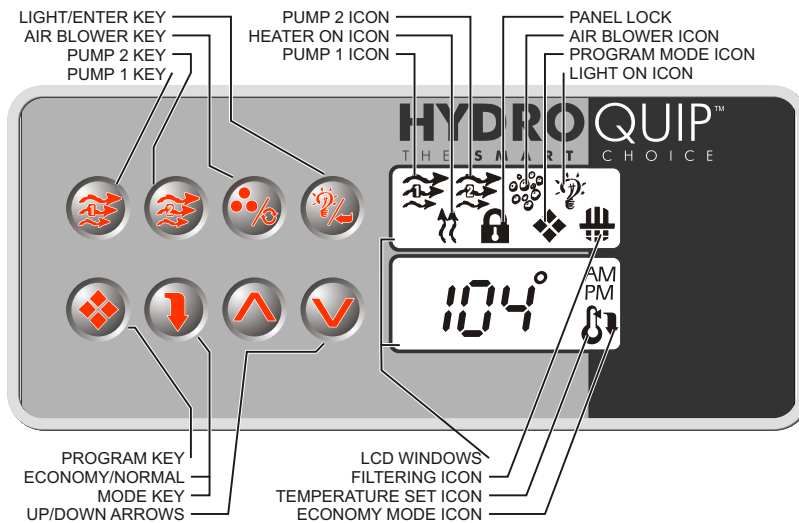
## Light Circuit

(120V Light utilizes Circ. Pump circuit)

Display: LI X

Value of X: 0 = Not Installed  
1 = One 12V, On - Off  
2 = One 12V, Three Intensities  
3 = Two 12V Lights (1 Three Intensity, 1 One On - Off)  
4 = 120V Light, 2-hour timeout  
5 = 120V Light, 4-hour timeout  
6 = 120V Light, 6-hour timeout

# 8600 SERIES HC - BASIC OPERATION



**Pump 1 Key:** Press this key once to turn Pump 1 on. A second press will turn it off. For dual speed pump operation; 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 Icon will appear on the LCD while the pump is running in High speed and flash while it is in Low speed. If the filter icon appears, 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 on. A second press will turn it off. For dual speed pump operation; 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. **If equipped this key will also control Pump 3 as follows:** Press this key once to turn Pump 2 on, second press will turn Pump 3 on, third press will turn off Pump 2 while Pump 3 remains on and a fourth press will turn Pump 3 off. For dual speed pump operation; Press this key once to turn Pump 2 low speed on, second press will turn Pump 2 onto high speed and Pump 3 on, third press will turn off Pump 2 while Pump 3 remains on and a fourth press will turn Pump 3 off. A built-in timer will shut the pump(s) off after 20 minutes of operation unless done so manually. The Pump 2 Icon will appear while the pump is running in High speed and flash while it is in Low speed.



**Air Blower Key:** Press this key once to turn blower onto High speed, a second press will turn the blower onto Low speed and a third press will turn the blower off. A built-in timer will shut the pump off after 20 minutes of operation unless done so manually. The Accessory Icon will appear while the blower is running in High speed and flash while it is in Low speed.



**Light/Enter Key:** Press this key to turn the light onto its highest intensity, a second press will turn the light onto low and a third press will turn it 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. The Light Icon will appear while the light is on.



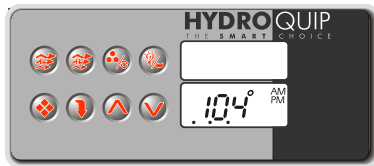
**Temperature Set Keys:** Press the Up arrow key to increase the desired temperature. Press the Down arrow key to decrease the temperature. The temperature can be adjusted in 1F increments from 59F to 104F (5C to 40C). The new setting will remain on the display for 5 seconds as a confirmation. During this time the Set Point icon will be appear 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 1F below the set temperature, the heater will be turned on until the temperature is 1F above the set temperature. The heater icon will appear while the heater is on and flash when there is a call for heat and the heater has not yet been activated.



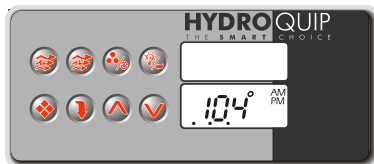
**Programming Parameters:** Press this key, the first parameter "CL" will appear in the display. To adjust the time, press the Light/Enter key. Use the Up/Down Arrow keys to adjust the time. Press the Program key to save the change and move to the next parameter. Follow this same procedure to adjust these parameters: Filter Cycle 1 start time "Fon1" 00:00 to 11:59, Filter Cycle 1 duration "Fdu1" OFF to 12, Filter Cycle 2 start time "Fon2" 00:00 to 11:59, Filter Cycle 2 duration "Fdu2" OFF to 12, Economy start time #1 "Eon1" 00:00 to 23:00, Economy duration #1 "Edu1" OFF to 24, Economy start time #2 "Eon2" 00:00 to 23:00, Economy duration #2 "Edu2" OFF to 24, Economy start time #3 "Eon3" 00:00 to 23:00, Economy duration #3 "Edu3" OFF to 24. A final press will save all changes and the display will revert back to the standard time/temperature mode.

**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.

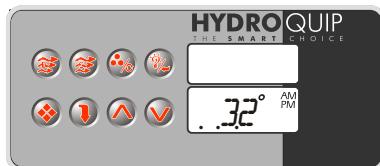
# 8600 SERIES - ERROR MESSAGES



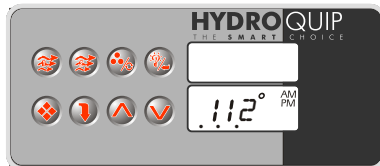
**Three Flashing Dots with Pump Off:** To prevent damage to your equipment, Hydro-Quip installs a pressure or flow switch. If 3 flashing dots appear below the temperature display while there is no pump(s) operating, turn the pump(s) on. If the 3 flashing dots went away this indicates that the pressure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



**Temperature Sensor:** If the display shows a constant 32F or 134°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 119F, the Hi-Limit protection will be turned on and the heater will be deactivated until the water has cooled to 110F. 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.



**HYDROQUIP**<sup>TM</sup>

13345 Estelle Street • Corona, CA 92879-1881  
Email: [hq@hydroquip.com](mailto:hq@hydroquip.com) • Internet: <http://www.hydroquip.com/>  
Telephone: 909.273.7575 • Fax: 800.332.7190