9400 SERIES - INCOMING POWER WIRING

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

OPTION 1



OPTION 2



120-Volt electrical service requires:

Line 1, Neutral and Ground.

240-Volt electrical service requires: Line 1, Lin 2, Neutral and Ground.

(Line 1 to Line 2 jumper must be removed)

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

9400 SERIES - 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 **"Cu 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).
- Press the Program 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.



Current Limiting

HC/LC

Display: Cu X

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

Fiber Optic



<u>AUX</u>

Display: AU X

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

9400 SERIES - 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. A built-in timer will shut the pump off after 20 minutes of operation unless done so manually. The Pump 2 lcon 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 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: This key is used to program the filter cycle. Follow these procedures to set each parameter: Press the Program Key; the display shows the current time. Use the Up/Down Arrow keys to adjust the hour. Press the Program key again and repeat procedure to adjust the minutes. Press the Program key again to adjust the Filter Cycle start time, **"FS"** followed by the current two-digit setting will appear. Use the Up/Down Arrow keys to adjust from 0 to 11. Press the Program key again to adjust the Filter Cycle duration, **"Fd"** followed by the current two-digit setting will appear. Use the Up/Down Arrow keys to adjust from 0 to 11. Press the Program key again to adjust the Filter Cycle duration, **"Fd"** followed by the current two-digit setting will appear. Use the Up/Down Arrow keys to adjust from 0 to 12. Press the Program key again to adjust the Filter Cycle frequency, **"FF"** followed by the current two-digit setting will appear. Use the Up/Down Arrow keys to adjust from 0 to 12. Press the Program key again to adjust the Filter Cycle frequency, **"FF"** followed by the current two-digit setting will appear. Use the Up/Down Arrow keys to adjust from 0 to 4 times a day. 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.

9400 SERIES - ERROR MESSAGES



Three Flashing Dots <u>with</u> **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 <u>with</u> **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.

