

# INSTALLATION NOTES

## PLEASE READ BEFORE INSTALLING UNIT!

### Voltage Notes:

- This control is pre-wired for 3-wire or 4-wire 240V power installation!
  - If installing for 3-wire 240V (no neutral), Line 2 will need to be brought to the Line 2 AND Neutral power lugs.
  - To convert to 120V, the 240V transformer will need to be swapped with its 120V equivalent, and Neutral will need to be brought to the Neutral AND Line 2 power lugs.
- The **Pump 1** and **Pump 2** receptacles are prewired for 240V!
- The **Circulation Pump**, **Blower**, **Ozone**, and **Audio** receptacles are prewired for 120V!
- Every receptacle has a white wire that is striped with the color of its receptacle. To change the voltage of one of the above mentioned receptacles, simply move its white wire at the power lugs to Line 2 for 240V or Neutral for 120V. For example, to convert the **Pump 2** receptacle to 120V, you would move the white wire with the brown stripe from the Line 2 power lug, to the Neutral power lug.
- The **Light** receptacle is prewired for standard 12V lighting, up to 0.9A. An appropriate 12V light harness is included with the system. To convert the receptacle to operate a high voltage light, the two jumpers on the board marked 'SPA LIGHT' must be moved to connect the center terminals to the top terminals.

### Equipment Notes:

- The **Circulation Pump** receptacle is for circulation pumps (1/8hp or less), designed for 24hr operation only! If your pump does not match this description, it should be connected to the **Pump 1** receptacle.
- When connecting **Pump 1** to the unit, please note that our controls use the red wire for low speed, and the black wire for high speed. If you are connecting a single speed **Pump 1**, you must connect both the red and the black wires to the high speed terminal on the back of the motor for the unit to heat and operates the jets normally.
- If connecting a **Pump 2**, as well as a **Blower**, the **Pump 2** *must* be wired for single speed (3-wire) operation.

### Temperature Sensor Notes:

- The included 1/4" temperature sensor is a dry sensor, and is not to be exposed to water.
- The sensor cable is not to be spliced with other sensors, or altered in any way as the sensor itself is calibrated to the cable it is attached to.
- The included 1/4" temperature sensor is designed to be installed into a thermowell housing. If you do not have one installed, we recommend installing the optional thermowell in the shell of your spa at mid-water level for the most accurate temperature display. For optimal operation, installing the temperature sensor onto the heater tube is not recommended.

### Once You've Installed Your Unit Following the Above Notes:

- You are ready to power the unit on and program the topside to operate the equipment you've connected to it. Please see the reverse side of this sheet for programming information!

# T5 Topside Control Programming Sheet

**NOTE: If you have questions about the set-up or programming of your new unit, please contact the dealer you purchased it from for assistance!**

CODE	ON	OFF (Default Setting)
1	Jets-2 button operates (1-Speed) Pump-2	Jets-2 button operates Pump-1 (Low Speed)
2	Jets-2 button operates Air Blower	
3	Jets-2 button operates (2-Speed) Pump-2	
4	Jets-2 button operates Air Blower & (1-Speed) Pump-2	
5	1 Filtration cycle per day	2 Filtration cycles per day
6	Jets-1 button operates (2-Speed) Pump-1	Jets-1 button operates Pump-1 (High Speed)
7	Thermostat does not control Pump-1 (Low Speed)	Thermostat controls Pump-1 (Low Speed)
8	<b>CODE 8 MUST ALWAYS BE OFF!</b>	
9	Temperature in Celsius	Temperature in Fahrenheit
A	Purge Blower at beginning of Filtration Cycle	Blower Purge OFF
B	Light button operates 3-Function Fiber Optic Light	Light button operates Standard Light (ON / OFF)
C	Heater shuts off when Pump-1 (High Speed) comes on	Heater will operate with Pump-1 (High Speed)
D	Heater shuts off when Pump-2 comes on	Heater will operate with Pump-2
E	Heater shuts off when Blower comes on	Heater will operate with Blower
F	There is a continuously running Circulating Pump attached	Pump-1 (Low Speed) is used to heat the spa
G	<b>CODE G MUST ALWAYS BE OFF!</b>	

## Programming the T5 Topside

When programming the T5 topside, you will need to enter the programming mode, cycle through the codes and make your changes promptly, or the unit will time-out and default back to the temperature display. Take a look at the code matrix above before going any further and write down the codes you'll be activating so that the programming process goes quickly & smoothly.

### Entering the Programming Mode:

Power up the control. Once the display is showing the current water temperature, follow the next three steps one by one. If you wait too long between one of the steps the unit will time-out, you'll see "LIT" on the screen, and you'll need to wait for the display to revert to the temperature readout before trying again.

- a.) Press & hold the Light button for 6 seconds (until you see the filtration time setting).
- b.) Quickly tap the Light button (you should now see the filtration startup time).
- c.) Press & hold the Light button again for an additional 11 seconds to enter the programming mode.

The screen should now show the first code (It will read '1oF', as all codes are set OFF by default)

### Programming the Topside:

Pressing the Temp button will switch the displayed code between OFF (oF) and ON (on). Pressing the Light button will take you to the next code.

Simply cycle through the codes, 1 through G, by pressing the Light button, and switching the desired codes ON with the Temp button as needed.

It is important to make sure you cycle through ALL the codes 1 through G *and back to the temperature display* when programming your topside! This is the only way the changes are saved to memory incase the unit loses power. You'll do this by cycling all the way to code G, then pressing the Light button one last time which will save the changes to memory and take you back the temperature display.

If you wait to long on a particular code and time-out to the temperature display, just re-enter the programming cycle which will take you to the code you timed-out on, and finish going through the process (cycling past Code G to save the changes this time).