System PN 53600_02
Balboa Instruments

System Model # VSP-VS510S-DCAH

Base PCBA PN
VS510S – 53601_01
240 Volt AC Connections (RED AC when 120V heater jumper is not attached)

120 Volt AC Connections (WHITE AC)
J23 & W1  Pump 1
J6 & W12  Pump 2
J29  Ozone
Must be the same voltage as pump 1
J47 & W2  Stereo
J17/26 & W7  Blower
J20  Light
12 V Only

Optional Aux Relay Board 240V (J33 & W 12)
J4 to Black AC on Main Board (J62)
J2 to J60 on Main Board (EXT – Near Switchbank A)
DIP Switches and Jumpers

Switchbank A

A1, Test Mode OFF
A2, Panel option
A3, Pump 2 ON
A4, Aux Freeze
A5, 1-speed P1 w/Circ
A6, 60 Hz

A7, Blower ON
A8, Degrees F
A9, Circ Pump OFF
A10, 50 Amp

DIP Switch Key

A 1 ............. Test Mode (normally Off)
A 2 ............. In “ON” position, Use long Serial Standard Panel
                In “OFF” position, Use Balboa Serial Standard
A 3 ............. In “ON” position, Pump 2 is enabled
                In “OFF” position, Pump 2 is disabled
A 4 ............. Aux Freeze (must be OFF).
A 5 ............. In “ON” position, Two-speed pump 1 when in Circ Mode (A9 On)
                In “OFF” position, One-speed pump 1 when in Circ Mode (A9 On)
A 6 ............. In “ON” position, 50Hz operation
                In “OFF” position, 60Hz operation
A 7 ............. In “ON” position, Blower is enabled
                In “OFF” position, Blower is disabled
A 8 ............. In “ON” position, temperature is displayed in degrees Celsius
                In “OFF” position, temperature is displayed in degrees Fahrenheit
A 9 ............. In “ON” position, 24 Hour Circ Pump
                In “OFF” position, no circ pump
A 10 ............ In “ON” position, heater is disabled while any high-speed pump or blower is running.
                (Low Amperage)
                In “OFF” position, heater can run while any/all high-speed pumps or blowers are running.
                (High Amperage)

Jumper Key

J45 .......... Jumper on Pin 1 and 2 will power J29 (Ozone) with Pump 1 Low.
            Jumper on Pin 2 and 3 will power J29 (Ozone) 24 hours (for Circ mode).
The Ozone Generator and Pump 1 must be the same voltage. J45 should be set on pins 1 and 2 to operate the Ozone Generator with Pump 1 Low.

If you are configuring the Ozone to run 24 hours with a circ pump by setting J45 to pins 2 and 3, connect W13 directly to White AC or Red AC without the other wires. The pin next to ground determines voltage on these connectors. Ground is typically the bottom pin of the white connector (if the flat sides of the top and bottom holes are to the left and the heater connections are on the bottom edge of the board).

The pin next to the bottom (ground) pin of J29 is fed by W13 and sets the voltage in the connector.

If the board is set up to operate a 120V ozone generator, the connector on the ozone generator is likely to be configured correctly, but should be compared to the illustration below.

If a 240V ozone generator is required, be sure the red wire in the ozone cord is positioned in the connector next to the green ground wire as described below.

Note: A special tool is required to remove the pins from the connector body once they are snapped in place. Check with your Balboa Account Manager for information on purchasing a pin-removal tool.
Panel Configurations