

VS511S Hot Sheet

System PN 53889
Balboa Instruments

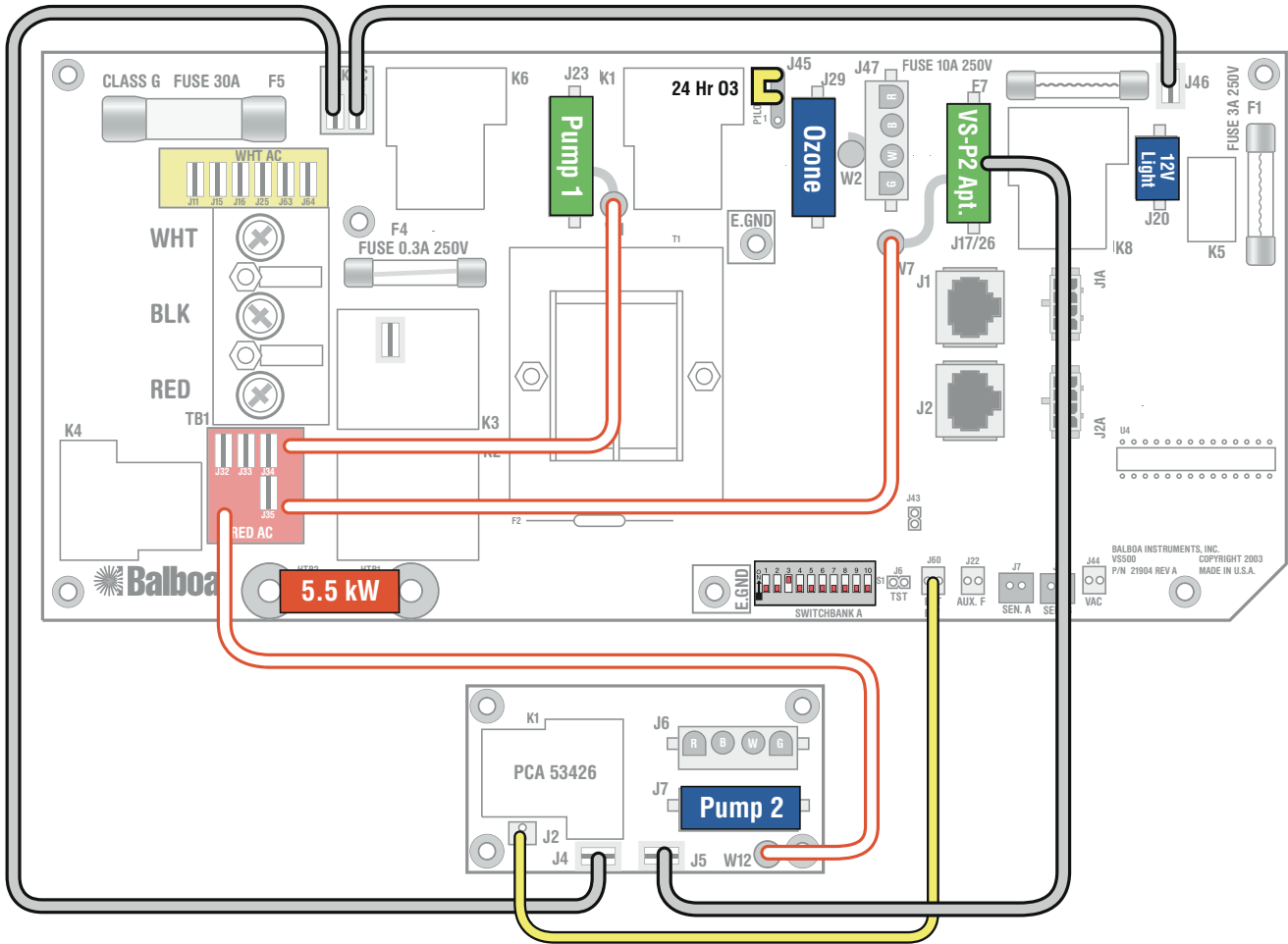
System Model # VSP-VS511S-DCAH

Base PCBA PN
VS511S – 53890








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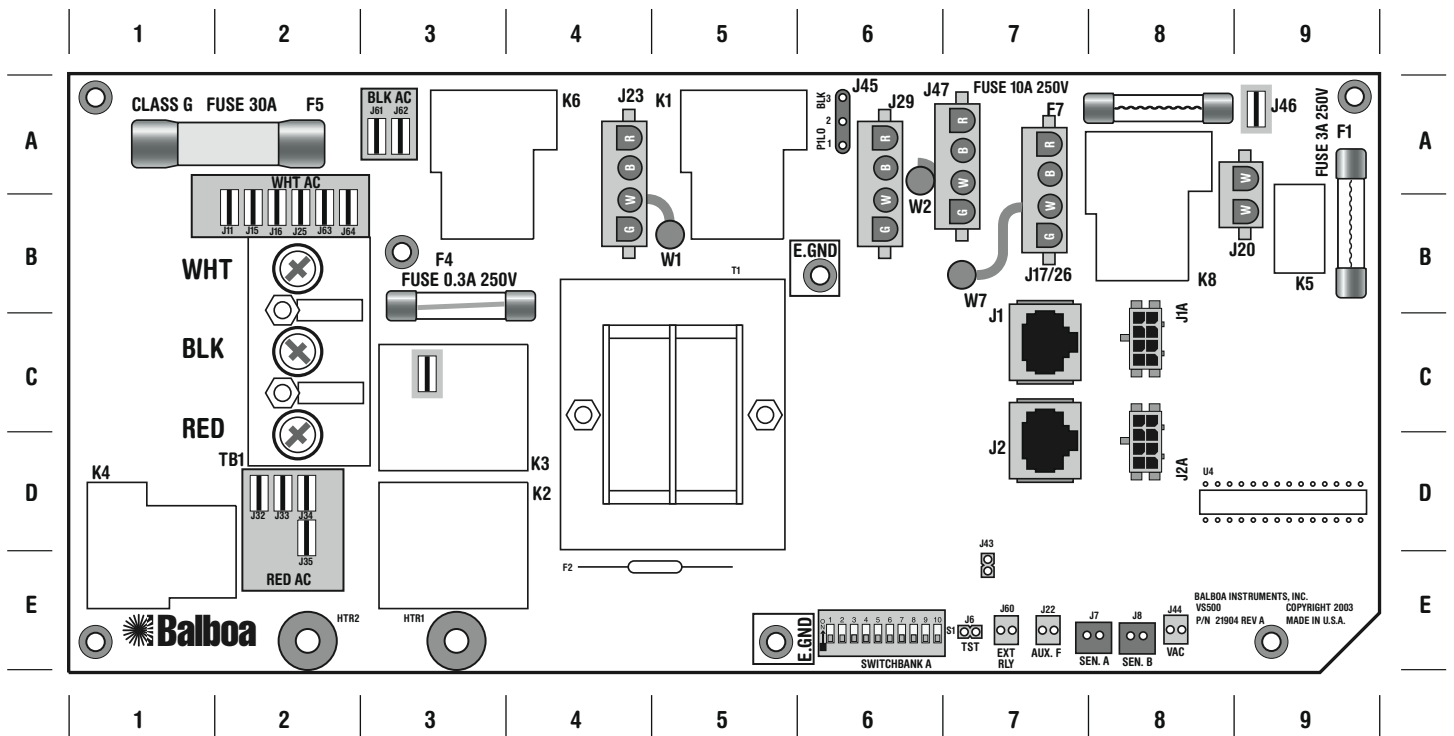
Circuit Board Configuration



Wiring Color Key

-  120 Volt Connections
-  240 Volt Connections
-  Black AC Jumpers
-  12 Volt Connections
-  Relay Control Wires

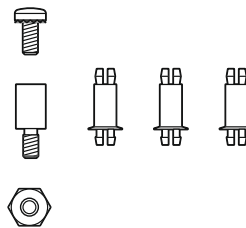
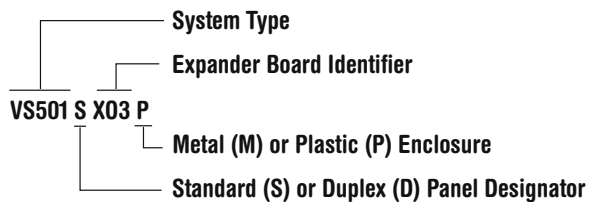
Circuit Board Layout



- J23 + W1 – 2-Speed Pump 1
– OR 1-Speed Pump 1 with DIP Switch A5
- J47 + W2 – Circ Pump (Hot 120V or 240V)
– OR Audio Visual power output
- J17/26 + W7 – 1-Speed Blower
– OR Single-Speed Pump 2 (With jumper from Black AC to J46)
- J29 + W1 – Ozone (Must be same voltage as Pump 1, EVEN IF a circ pump is used for filtration)
– Note X-03 option at right
- J20 – Spa Light (12V only)

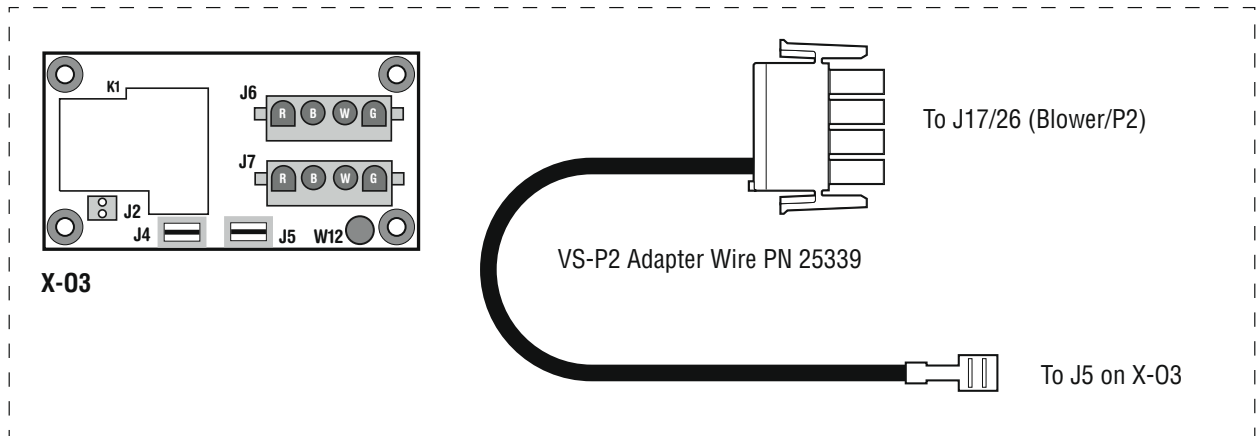
System can be configured for any Duplex Topside Panel or a Serial Standard Panel.

Legend Code Format:



X-Mount P **PN 53933**
 Used for mounting any Expander Board
 in a plastic enclosure.
 Standoffs attach to heater mounting bracket.

Expander Board Layout



X-2SP Kit

Adapter PN 25339 is used in conjunction with an X-03 to run a 2-speed pump 2.

J4 connects to Black AC as usual.

Jumper from Black AC to J46 must be in place on Main PCBA to jump out the Blower fuse.

Connect 2-speed pump to J7 on X-03.

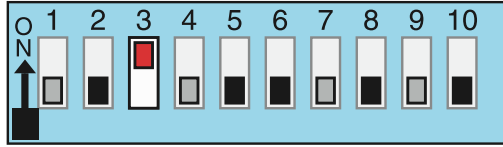
No Blower is available when this kit is used.

Represents a **VS511**.

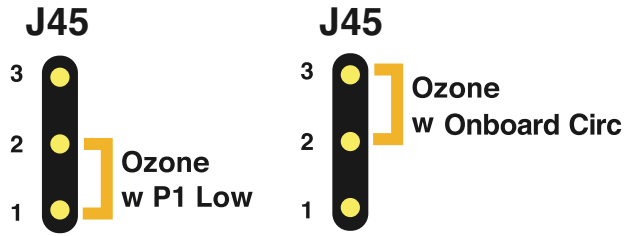
PN 53913

DIP Switches and Jumpers

Switchbank A



- | | |
|------------------------------|--------------------------|
| A1, Test Mode OFF | A7, N/A |
| A2, Panel option | A8, Degrees F |
| A3, Pump 2 ON | A9, Circ Pump OFF |
| A4, Aux Freeze | A10, 50 Amp |
| A5, 1-speed P1 w/Circ | |
| A6, 60 Hz | |



Ozone MUST be the same voltage as Pump 1.

The jumper connection above does not apply if using optional relay board.

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 N/A
- 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).

Ozone Connections

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).

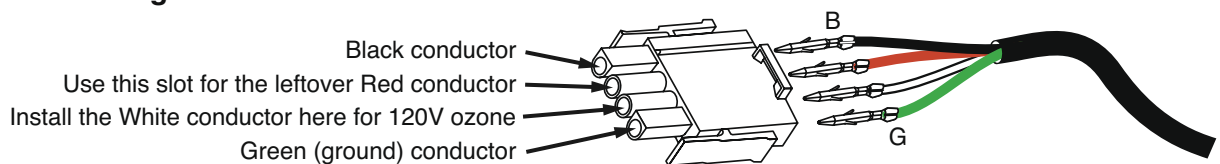
The pin next to the bottom (ground) pin of J29 is fed by W13 and sets the voltage in the connector.

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.

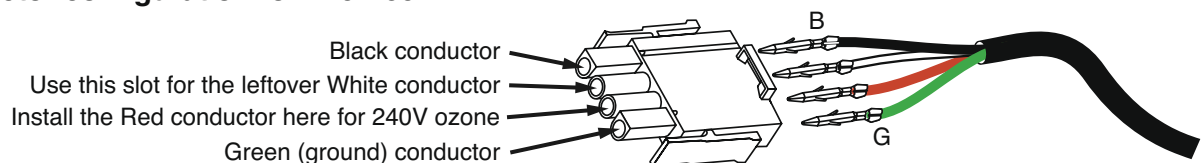
If a 240V ozone generator is required, be sure the red wire in the ozone cord is positioned in the connector next to the green ground wire as described below.

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.

Ozone connector configuration for 120V 60Hz



Ozone connector configuration for 240V 60Hz



Panel Configurations

