



## VS/GS Series

Your Single Source Solution

- Programmable Filtration
- European/AU safety approvals
- Advanced Piezo Switches
- Over 2 million systems installed worldwide
- Customizable topside panel overlay



Made in the USA

**BALBOA**  
water group

## Entry Level Hot Tub Control Systems

The Value Series (VS) family of hot tub control systems are designed using Balboa's patented M7 temperature and flow sensor technology and a new universal control platform. These features increase the reliability, ease of installation and serviceability of the control.

## Designed for Easy Installation and Service

The VS family is based on a common universal control platform, which increases feature flexibility while reducing installation and configuration problems. The VS family has exceptionally good feature flexibility, so its performance is comparable with much higher end products. The units incorporate Balboa's patented M7 temperature probe technology, which eliminates the more failure prone pressure switches and simplifies the installation process by not having to drill additional holes in the spa.



### Features

- Built on patented M7 sensor technology
- 120V/240V convertible power supply
- Custom designed plastic enclosure
- US & Canadian safety approvals
- High reliability built in
- Integrated functionality
- Rigorously tested
- Easy to install & service

## Flexible, High Reliability, Feature Rich

The systems have a plastic enclosure to eliminate water intrusion. Connectors are built onto the circuit board minimizing wires and simplifying service. The different models have controls for a single two-speed pump or an additional blower or pump. All models feature a convertible power supply that can be wired for 120 or 240 volts. They support a variety of panels and come with a 3.0, 4.0 or a 5.5kW 240V heater.

## VS300 System Specifications

Systems	Material No.	Pump 1	Pump 2	Circ Pump	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
VS300AV	55506	240V 2 Speed	-	-	120V	240V	12V	4.0kW @ 240V	VL200, VL240, VL260, VL401, VL403, VL406U
VS300FC5	55646	120/240V 2 Speed	-	-	-	120V/240V	12V	1.4kW @ 120V/ 5.5kW @ 240V	VL200, VL240, VL260, VL401, VL406U
VS300FH4	54647-01	240V 2 Speed	-	-	-	240V	12V	4.0kW @ 240V	VL200, VL240, VL260, VL401, VL403, VL406U
VS300FH5	54545-01	240V 2 Speed	-	-	-	240V	12V	5.5kW @ 240V	
VS300FL4	54626-01	120V 2 Speed	-	-	-	120V	12V	4.0kW @ 240V	
VS300FL5	54603-01	120V 2 Speed	-	-	-	120V	12V	5.5kW @ 240V	

## VS500Z System Specifications

Systems	Material No.	Pump 1	Pump 2	Circ Pump	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
VS500Z	54368HC3	120V/240V 2-Speed	-	120/240V	120/240V	120/240V	12V	5.5kW @ 240V	VL200, VL240, VL260, VL401, VL403, VL406U
	54368-03	120V/240V 2-Speed	-	120/240V	120/240V	120V/240V	12V	5.5kW @ 240V	
	54603-03	120V 2 Speed	-	-	120/240V	120/240V	12V	4.0kW @ 240V	
	54337-04	120V 2 Speed	-	120V	120V	120V	12V	1.4kW @ 120V	

Note: Please see our Tech Sheets for additional information.

## VS501Z System Specifications

Systems	Material No.	Pump 1	Pump 2	Circ Pump	Blower	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
VS501Z	54656HC3	120V/240V 2-Speed	-	120V/240V	120V/240V	-	120V/240V	12V	240V 5.5kW	VL200, VL401, VL403, VL406T
	54356-03	120V/240V 2-Speed	-	120V/240V	120V/240V	-	120V/240V	12V	240V 5.5kW	
	54379-03	120V/240V 2-Speed	-	120V/240V	120V/240V	-	120V/240V	12V	240V 4.0kW	
	54481-03	120V/240V 2-Speed	-	120V/240V	120V/240V	-	120V/240V	12V	240V 3.0kW	

## VS504SZ System Specifications

System	Material No.	Pump 1	Pump 2	Circ Pump	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panel
VS504SZ	54637-01	240V, 2 Speed	240V, 1 Speed	240V	-	240V	12V	240V @ 5.5kW	VL701S

## VS510DZ and VS510SZ System Specifications

Systems	Material No.	Pump 1	Pump 2	Circ Pump	Blower	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
VS510SZ	54371-02	240V, 2 Speed	240V, 1 Speed	120V	240V	120V	120V	12V	240V @ 5.5kW	VL700S, VL701S, VL702S
	54371HC2	240V, 2 Speed	240V, 1 Speed	120V	240V	120V	120V	12V	240V @ 5.5kW	
	54559-01	240V, 2 Speed	240V, 1 Speed	120V	240V	120V	120V	12V	240V @ 4.0kW	

## VS511Z and VS511SZ System Specifications

Systems	Material No.	Pump 1	Pump 2	Circ Pump	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
VS511Z	54382-05	240V, 2 Speed	240V, 1 Speed	120V	120V	120V	12V	240V @ 5.5kW	VL401, VL402, VL403, VL404, VL406T
VS511SZ	54384-04	240V, 2 Speed	240V, 1 Speed	120V	120V	120V	12V	240V @ 5.5kW	VL600S, VL700S, VL701S
	55053-03	240V, 2 Speed	240V, 1 Speed	120V	120V	120V	12V	240V @ 4.0kW	

### VS513Z System Specifications

System	Material No.	Pump 1	Pump 2	Circ Pump	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
VS513Z	55839-01	240V, 2 Speed	120V, 1 Speed	120V	120V	120V	12V	240V @ 5.5kW	VL400, VL406T

### VS515Z System Specifications

System	Material No.	Pump 1	Pump 2	Pump 3	Circ Pump	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panel
VS514SZ	54639-01	240V, 2 Speed	240V, 1 Speed	240V, 1 Speed	240V	120V	240V	12V	240V @ 5.5kW	VL701S

### VS515Z System Specifications

System	Material No.	Pump 1	Pump 2	Blower	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panel
VS515Z	54639-01	240V, 2 Speed	240V, 1 Speed	240V	120V	120V	12V	240V @ 5.5kW	VL406T, VL406U, VL701S

### VS501SZ, VS520DZ and VS520SZ System Specifications

Systems	Material No.	Pump 1	Pump 2	Circ Pump	Blower	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
VS520SZ	56007-01	240V, 2 Speed	240V, 2 Speed	120V	240V	120V	120V	12V	240V @ 5.5kW	VL 701S
	56007HC1	240V, 2 Speed	240V, 2 Speed	120V	240V	120V	120V	12V	240V @ 5.5kW	
	54377-02	120/240V, 2 Speed	-	120/240V	120/240V	120/240V	120/240V	12V	240V @ 5.5kW	
	54377HC2	120/240V, 2 Speed	-	120/240V	120/240V	120/240V	120/240V	12V	240V @ 5.5kW	
VS520DZ	56016-01	240V, 2 Speed	240V, 2 Speed	120V	240V	120V	120V	12V	240V @ 5.5kW	VL801D, VL802D

### VS523DZ System Specifications

System	Material No.	Pump 1	Pump 2	Pump 3	Circ Pump	Blower	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panel
VS523DZ	54762	240V, 2 Speed	240V, 1 Speed	240V, 1 Speed	120V	240V	12V	120V	12V	240V @ 5.5kW	VL801D, VL802D

# Controls & Panels

VS Systems Expansion Options

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## Expansion Options



### X-B

Material No.: 53310

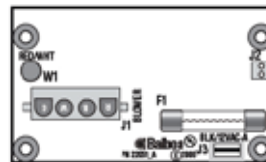
Used for a 1 Speed Blower output only.



### X-P

Material No.: 53544

Expansion board used to add a 1-speed pump output



### X-TB

Material No.: 55344

Used for a multi-speed Blower (required v29+ software and "bL" set to "2" or "3"). Or can be used for a 1 Speed Blower.



### X-Mount P

Material No.: 53933

Used for mounting any Expander board into a plastic enclosure (EL2000 and VS Series)



### X-P231

Material No.: 53681

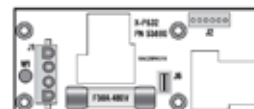
Can replace the X-P in cases where branch circuit protection is ended for high amperage devices that would over-burden power input fuse F5 (1-A) on the main PCBA.



### X-P632

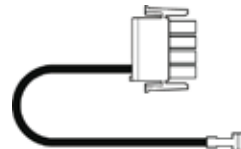
Material No.: 53680

Used for a 2 Speed Pump output or for two 1 Speed Pumps. Can also be used for optional setups.



### X-03

Material No.: 53426



### VS-P2 Adapter Wire

Material No.: 25339

### X-FOW Kit

Material No.: 53912

Special setup with X-03 and adapter PN 25338 to operate a fiber-optic light and color wheel independently. Required to operate a Fiber Optic when a Circ Pump is installed on Main PCBA at J2.

NOTES:



## Global Series (GS) of Spa Controls

The Global Series (GS) of spa control systems were designed using Balboa's patented M7 temperature flow and sensor technology and a new universal control platform. These features increase the reliability, ease of installation and serviceability of the control.

### Designed for easy installation and service

The GS family is based on a common universal control platform, which increases feature flexibility while reducing installation and configuration problems. The GS family has exceptionally good feature flexibility, so its performance is competitive with much higher end products. The units incorporate Balboa's patented M7 temperature probe technology, which eliminates the more failure prone pressure switches and simplifies the installation process by not having to drill additional holes in the spa.



### Features

All controls have the following features:

- Circulation pump, 24 hrs or 1.5C safety shut off
- Spa light 10V/12W on/off
- Audio/visual device power output
- CE Approvals
- Ozone ready
- 1-3 kW heater option

### Flexible, High Reliability, Feature Rich

The systems have a plastic enclosure to eliminate water intrusion. Connectors are built onto the circuit board minimizing wires and simplifying service. The different models have controls for a single 2-speed pump or and additional blower or pump. All models feature a power supply that is wired to 230V, support multiple topside panels and offer 1, 1.5, 3.5, 4 and 5.5 kW heater.



## GS500Z M7 and GS500Z System Specifications

System	Material No.	Pump 1	Pump 2	Circ Pump	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
GS500Z	54509-01	230V 2 Speed	-	230V	230V	230V	10V	3.0kW	VL200, VL401, VL403, VL406U
	54509HC1	230V 2 Speed	-	230V	230V	230V	10V	3.0kW	
	54523-01	230V 2 Speed	-	230V	230V	230V	10V	2.0kW	

Note: Circ Pump is optional. Please see our Tech Sheets for additional information.

## GS501Z M7, GS501SZ M7 and GS510DZ System Specifications

Systems	Material No.	Pump 1	Pump 2	Circ Pump	Blower	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panel
GS501Z	54511-01	230V 2 Speed	-	230V	230V	230V	230V	10V	3.0kW	VL200, VL240, VL260, VL401, VL402, VL406T
	54511HC1	230V 2 Speed	-	230V	230V	230V	230V	10V	3.0kW	
GS501SZ	54515-01	230V 2 Speed	-	230V	230V	230V	230V	10V	3.0kW	VL600, VL701S
	55248-02	230V 2 Speed	-	230V	230V	230V	230V	10V	2.0kW	VL801D, VL802D
GS501DZ	55250-01	230V 2 Speed	-	230V	230V	230V	230V	10V	3.0kW	

## GS504SZ System Specifications

System	Material No.	Pump 1	Pump 2	Circ Pump	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panel
GS504SZ	54650-01	230V 2 Speed	230V 1 Speed	230V	230V	230V	10V	3.0kW	VL701S

Note: Circ Pump is optional. Please see our Tech Sheets for additional information.

## GS510SZ M7 and GS510DZ System Specifications

Systems	Material No.	Pump 1	Pump 2	Circ Pump	Blower	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panel
GS510Z	54517-01	230V, 2 Speed	230V, 1 Speed	230V	230V	230V	230V	10V	3.0kW	VL700S, VL701S, VL702S
GS510Z	54517HC1	230V, 2 Speed	230V, 1 Speed	230V	230V	230V	230V	10V	3.0kW	
GS510DZ	55106-01	230V, 2 Speed	230V, 1 Speed	230V	230V	230V	230V	10V	3.0kW	VL801D

## GS511Z M7 and GS511SZ System Specifications

Systems	Material No.	Circ Pump	Pump 1	Pump 2	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
GS511Z	54519-02	230V	230V, 2 Speed	230V, 2 Speed	230V	230V	10V	3.0kW	VL401, VL402, VL403, VL404, VL406T
GS511SZ	54521-02	230V	230V, 2 Speed	230V, 2 Speed	230V	230V	10V	3.0kW	VL600S, VL700S, VL701S

## GS513Z System Specifications

System	Material No.	Pump 1	Pump 2	Circ Pump	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
GS513Z	55896	230V, 2 Speed	230V, 1 Speed	230V	230V	230V	10V	3.0kW	VL400, VL406T

## GS515Z System Specifications

System	Material No.	Pump 1	Pump 2	Blower	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panel
GS515Z	55474-01	230V 2 Speed	230V 1 Speed	230V	230V	230V	10V	3.0kW	VL400, VL406T

## GS523DZ System Specifications

System	Material No.	Pump 1	Pump 2	Pump 3	Blower	AV (Stereo)	Ozone Voltage	Spa Lights	Heater	Control Panels
GS523DZ	54762	230V 2 Speed	230V 1 Speed	230V 1 Speed	240V	120V	120V	12V	240V @ 5.5kW	VL801D, VL802

Note: Circ Pump is not allowed with this system. Please see our Tech Sheets for additional information.



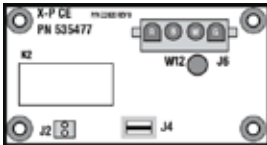
## Expansion Options



### X-B CE

Material No.: 53311

Used for a 1 Speed Blower output only.



### X-P CE

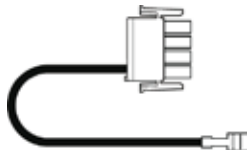
Material No.: 53547

Used for a 1 Speed Pump or Mister output.



### X-03 CE

Material No.: 53427



### Adapter Wire

Material No.: 25338

### X-FOW CE Kit

Material No.: 53976

Special setup with X-03 CE and adapter PN 25338 to operate a fiber-optic light and color wheel independently. Required to operate a Circ Pump is installed on Main PCBA at J2.



### X-P231 CE

Material No.: 55025

Can replace the X-P CE in cases where branch circuit protection is needed for high amperage devices that would over-burden power input fuse F6 or F7 (4-C) on the main PCBA.



### X-P632 CE

Material No.: 55026

Used for a 2 Speed Pump output or for two 1 Speed Pumps. Can also be used for optional setups.