### SSW20G2 Tech Sheet

Customer:	Balboa Water Group
Part Number:	59446-01       800 Incoloy 5.5kW         59447-01       825 Incoloy 5.5kW         59448-01       Titanium 5.5kW
Custom Box Overlay	
Box Overlay Part Number	N/A
UL System Model:	BP20-SSW20G2-AU
Software Version ID:	M100_220 V69.0
Software Version:	69.0
File Name:	BP2000_69.0_SSW20G2.hex
Configuration Signature:	F26D07A1
Eng. Project Number:	5663
Control Panels:	
spaTouch™3	Any version (version 3.2 or later required for Clim8zone™ heat pump support)
spaTouch™2	Swim verison 2.32 or later required for swim functions (only one of these can be used per pack); version 2.36 or later required for Clim8zone™ heat pump support)

Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending. © Copyright 2009 Balboa Water Group.



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Swim-aware spa-side version 2.32 or later optional as second panel; version 2.36 or later required for Clim8zone<sup>™</sup> heat pump support

# **System Revision History**

Part #	EPN	Date	Originator	Changes Made
ZT000500 TBD	5209	06-03-19	BWG	Generic BP2000Plus-based SmartSwim™ system, with up to 4 2-Speed Pumps, plus optional Circ.
59446 59447 59448	5209	04-09-20	BWG	Release to production.
59446-01 59447-01 59448-01	5663	03-15-23	BWG	Update to support Clim8zone™ heat pump.

bba<sup>™</sup>2 / bba<sup>™</sup>3 (Balboa Bluetooth Amp) connection is documented separately.

bba<sup>™</sup>2 / bba<sup>™</sup>3 is integrated into graphic display panels (including spaTouch<sup>™</sup>).



# **Basic Functions Setup 1-25**

#### **Power Requirements:**

240VAC, 50/60Hz\*, 48A, Class A GFCI-protected service (Circuit Breaker = 60A max.), 4 wires [hot, hot, neutral, ground]

\*BP systems automatically detect 50Hz vs 60Hz. However, power frequency (50Hz vs 60Hz) is just one of many differences between North American (UL) and CE power, and it is because of these other differences that different BP systems must be used for UL vs CE territories. Also, there are a few countries that use CE power but 60 Hz (such as South Korea) which need CE systems, and a few countries that use UL power but 50 Hz which need UL systems.

#### **HiPot Testing Note:**

Disconnect slip terminal with green wires from J6 prior to performing HiPot test. Failure to disconnect may cause a false failure of the test. Reconnect terminal to J6 after successful completion of HiPot test.



## **Basic Functions Setup 1-25**

#### System Ouputs:

Pump 1		•	11A max* p in Setups 3, 4, hrough heater	15-minute timer for High Speed, 15-Minute timer for Low Speed 13 - 16, 21 - 24
Pump 2	240VAC	2-Speed	11A max*	15-minute timer
Pump 3	240VAC	2-Speed	11A max*	15-minute timer
Pump 4	240VAC	2-Speed	11A max*	15-minute timer
Circ Pump		heater pum	2A max p in Setups 1, 2, hrough heater	Programmable Filtration Cycles + Polling , 5 - 12, 17- 20 & 25
Ozone	240VAC***		.5A max	Slaved to Circ Pump in Setups 1, 2, 5 - 12, 17- 20 & 25 Independent in Setups 3, 4, 13 - 16, 21 - 24
Spa Light	10VAC	0n/0ff	2A** max	240-minute timer.
AV + C8Z****	240VAC	Hot	2A + 8A max	Always on
Heater	5.5kW @ 2	240VAC max		

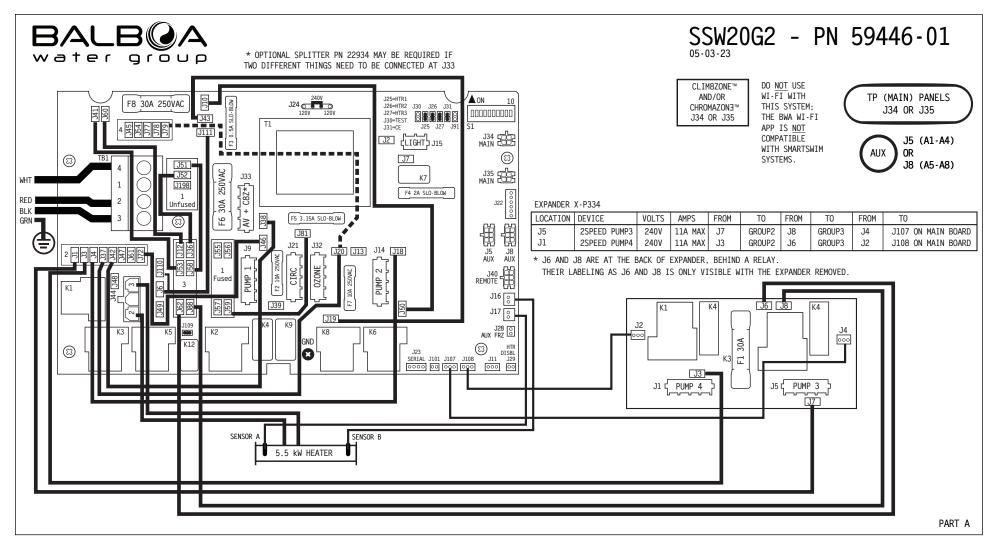
- \* See Setup Chart (page 7) as to which pumps are swim pumps in each Setup, and as to whether there is a buoyancy pump. **All swim pumps must be identical.**
- \*\*\* Both the Circ pump and Ozone can be converted to 120V, however they will be the same voltage after conversion. (Both 120V or both 240V.) \*\*\*\* Optional splitter PN 22934 can be used to connect two things, such as an audio device and Clim8zone™(C8Z), to J33.

\*\* 2A max limit is shared by On/Off Spa Light <u>and</u> CHROMAZON∃<sup>™</sup>.



# Hardware Setup

#### Wiring Diagram





### Hardware Setup

#### Settings

SETUP #	CIRC PUMP	PUMP 1	PUMP 2	PUMP 3	PUMP 4	SWIM SPEEDS	SWIM PUMPS	PUMP 1 FUNCTION	PUMP 2 FUNCTION	TEMP SCALE	
											1
1	PROGRAMMABLE FILTRATION + POLLING		2-SPEED	2-SPEED	2-SPEED	8	1 - 4	SWIM	SWIM	°F	
2	PROGRAMMABLE FILTRATION + POLLING	_	2-SPEED	2-SPEED	2-SPEED	7	1 - 4	SWIM	SWIM	°F	
3	NONE	2-SPEED	2-SPEED	2-SPEED	2-SPEED	8	1 - 4	SWIM	SWIM	°F	
4	NONE	2-SPEED	2-SPEED	2-SPEED	2-SPEED	7	1 - 4	SWIM	SWIM	°F	
5	PROGRAMMABLE FILTRATION + POLLING		2-SPEED	2-SPEED	2-SPEED	6	2 - 4	NON-SWIM	SWIM	°F	
6	PROGRAMMABLE FILTRATION + POLLING		2-SPEED	2-SPEED	2-SPEED	5	2 - 4	NON-SWIM	SWIM	°F	
7	PROGRAMMABLE FILTRATION + POLLING		2-SPEED	2-SPEED	2-SPEED	6	2 - 4	BUOYANCY	SWIM	°F	
8	PROGRAMMABLE FILTRATION + POLLING	-	2-SPEED	2-SPEED	2-SPEED	5	2 - 4	BUOYANCY	SWIM	°F	
9	PROGRAMMABLE FILTRATION + POLLING		2-SPEED	2-SPEED	2-SPEED	6	2 - 4	NON-SWIM	SWIM	°F	
10	PROGRAMMABLE FILTRATION + POLLING		2-SPEED	2-SPEED	2-SPEED	5	2 - 4	NON-SWIM	SWIM	°F	
11	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	2-SPEED	2-SPEED	2-SPEED	6	2 - 4	BUOYANCY	SWIM	°F	
12	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	2-SPEED	2-SPEED	2-SPEED	5	2 - 4	BUOYANCY	SWIM	°F	
13	NONE	2-SPEED	2-SPEED	2-SPEED	2-SPEED	6	2 - 4	NON-SWIM	SWIM	°F	ALL SWIM
14	NONE	2-SPEED	2-SPEED	2-SPEED	2-SPEED	5	2 - 4	NON-SWIM	SWIM	°F	
15	NONE	2-SPEED	2-SPEED	2-SPEED	2-SPEED	6	2 - 4	BUOYANCY	SWIM	°F	1
16	NONE	2-SPEED	2-SPEED	2-SPEED	2-SPEED	5	2 - 4	BUOYANCY	SWIM	°F	LOCATI
17	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	2-SPEED	2-SPEED	4	3 - 4	NON-SWIM	BUOYANCY	°F	J9
18	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	2-SPEED	2-SPEED	2-SPEED	4	3 - 4	NON-SWIM	BUOYANCY	°F	
19	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	2-SPEED	2-SPEED	4	3 - 4	NON-SWIM	BUOYANCY	°F	J14
20	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	2-SPEED	2-SPEED	4	3 - 4	NON-SWIM	NON-SWIM	°F	
21	NONE	2-SPEED	2-SPEED	2-SPEED	2-SPEED	4	3 - 4	NON-SWIM	BUOYANCY	°F	1
22	NONE	2-SPEED	1-SPEED	2-SPEED	2-SPEED	4	3 - 4	BUOYANCY	NON-SWIM	°F	J15
23	NONE	2-SPEED	1-SPEED	2-SPEED	2-SPEED	4	3 - 4	NON-SWIM	BUOYANCY	°F	J21
24	NONE	2-SPEED	1-SPEED	2-SPEED	2-SPEED	4	3 - 4	NON-SWIM	NON-SWIM	°F	J32
25	PROGRAMMABLE FILTRATION + POLLING	-	-	2-SPEED	2-SPEED	4	3 - 4	NON-SWIM	BUOYANCY	°F	
		1									J J33
исг	COPPER CONDUCTORS ONLY. TORC	UE RANGE F			OCK (TR1)				EAD OF		J44
		0 IN. LBS.			UCK (IDI)			SE	TUP #1,		J44
	UCTEURS DE CUIVRE.	U IN. LDJ.	(31.1-34.	J KY CIII)				THIS SYS	TEM IS		* 2A LI
	WG MIN. WIRE = $90^{\circ}$ CONN	ECT ONLY T	O CIRCUITS	S PROTECTE	D BY A CLA	ASS A GFC	Ι.	CONFIGU	RED IN		ZA LI
"		SCONNECTIN	IG MEANS MI	IST RE THS		ГНТИ СТСН	T FROM	S	ETUP #: 🔔		** FOR
FOR		EQUIPMENT									CIRC
CONE	UCTODE ETTED ON THE DACTE	DE WALLS C									
0F 6	0°C AMPACITY BUT RATED	DE MALLS U		_, 517, 01	TIOT TOD.						
MINI	MUM OF 90°C. TOTA	L OUTPUT A	MP DRAW NO	OT TO EXCE	FD MAX TN	PUT RATIN	G OF SPA				
		EARTH GROU									
		EM ENCLOSU		1000 73 1	NDIGNILD .	INGIDE IN	-				
	5151	LN0L000									
	BALBQA										

SWITCHBANK S1 OFF		SWITCHBANK S1 ON
TEST MODE OFF	<ul> <li>A1</li> </ul>	TEST MODE ON
DON'T ADD 1 HS PUMP W/HTR	A2	ADD 1 HS PUMP WITH HEAT
DON'T ADD 2 HS PUMPS W/HTR	🗲 A3	ADD 2 HS PUMPS WITH HEAT
DON'T ADD 4 HS PUMPS W/HTR	🗲 A4	ADD 4 HS PUMPS WITH HEAT
SPECIAL AMPERAGE RULE A	🗲 A5	SPECIAL AMPERAGE RULE B
STORE SETTINGS**	<ul> <li>A6</li> </ul>	MEMORY RESET**
1 MIN HTR COOLDOWN (ELEC)	🗲 A7	5 MIN HTR COOLDOWN (GAS)
NOT ASSIGNED	<b>A</b> 8	NOT ASSIGNED
NOT ASSIGNED	A9	NOT ASSIGNED
NOT ASSIGNED	<ul><li>A10</li></ul>	NOT ASSIGNED

\*\* SWITCH # 6 SHOULD BE SET TO OFF UPON FINAL INSTALLATION.

#### ALL SWIM PUMPS MUST BE IDENTICAL.

LOCATION	DEVICE	VOLTS	MAX AMPS	FROM	Т0
J9	2/1-SP PUMP 1	240V	11A MAX	J46	GROUP 2
J14	2/1-SP PUMP 2	240V	11A MAX	J18	GROUP 2
	J14 LINE 1 CONNECTION			J43	J19
				J10	J50
J15	SPA LIGHT	10V	2A*		
J21	CIRC PUMP	240V**	2A MAX	J20	GROUP 2
J32	OZONE		0.5A		
	CIRC AND OZONE LINE 1 CONNEC	TION		J81	J59
J33	AV + CLIM8ZONE™ (C8Z)	240V	2A + 8A	J38	GROUP 2
J44	HEATER	240V	5.5 kW		

2A LIMIT IS SHARED BY J15 SPA LIGHT AND CHROMAZON∃™

FOR 120V CIRC PUMP AND OZONE, CONNECT J20 TO GROUP 4. CIRC PUMP AND OZONE HAVE TO BE THE SAME VOLTAGE (BOTH 240V OR BOTH 120V).



SSW20G2 - PN 59446-01 D5-03-23 - PN 59446-01

Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending.



# **Setup Reference Table**

Setup #	Circ Pump	Pump 1	Pump 2	Pump 3	Pump 4	Swim Speeds	Swim Pumps	Pump 1 Function	Pump 2 Function	Temp Scale
1	Programmable Filtration + Polling	2-Speed	2-Speed	2-Speed	2-Speed	8	1 - 4	Swim	Swim	°F
2	Programmable Filtration + Polling	2-Speed	2-Speed	2-Speed	2-Speed	7	1 - 4	Swim	Swim	°F
3	None	2-Speed	2-Speed	2-Speed	2-Speed	8	1 - 4	Swim	Swim	°F
4	None	2-Speed	2-Speed	2-Speed	2-Speed	7	1 - 4	Swim	Swim	°F
5	Programmable Filtration + Polling	2-Speed	2-Speed	2-Speed	2-Speed	6	2 - 4	Non-Swim	Swim	°F
6	Programmable Filtration + Polling	2-Speed	2-Speed	2-Speed	2-Speed	5	2 - 4	Non-Swim	Swim	°F
7	Programmable Filtration + Polling	1-Speed	2-Speed	2-Speed	2-Speed	6	2 - 4	Buoyancy	Swim	°F
8	Programmable Filtration + Polling	2-Speed	2-Speed	2-Speed	2-Speed	5	2 - 4	Buoyancy	Swim	°F
9	Programmable Filtration + Polling	1-Speed	2-Speed	2-Speed	2-Speed	6	2 - 4	Non-Swim	Swim	°F
10	Programmable Filtration + Polling	1-Speed	2-Speed	2-Speed	2-Speed	5	2 - 4	Non-Swim	Swim	°F
11	Programmable Filtration + Polling	1-Speed	2-Speed	2-Speed	2-Speed	6	2 - 4	Buoyancy	Swim	°F
12	Programmable Filtration + Polling	1-Speed	2-Speed	2-Speed	2-Speed	5	2 - 4	Buoyancy	Swim	°F
13	None	2-Speed	2-Speed	2-Speed	2-Speed	6	2 - 4	Non-Swim	Swim	°F
14	None	2-Speed	2-Speed	2-Speed	2-Speed	5	2 - 4	Non-Swim	Swim	°F
15	None	2-Speed	2-Speed	2-Speed	2-Speed	6	2 - 4	Buoyancy	Swim	°F
16	None	2-Speed	2-Speed	2-Speed	2-Speed	5	2 - 4	Buoyancy	Swim	°F
17	Programmable Filtration + Polling	2-Speed	2-Speed	2-Speed	2-Speed	4	3 - 4	Non-Swim	Buoyancy	°F
18	Programmable Filtration + Polling	1-Speed	2-Speed	2-Speed	2-Speed	4	3 - 4	Non-Swim	Buoyancy	°F
19	Programmable Filtration + Polling	2-Speed	1-Speed	2-Speed	2-Speed	4	3 - 4	Non-Swim	Buoyancy	°F
20	Programmable Filtration + Polling	2-Speed	1-Speed	2-Speed	2-Speed	4	3 - 4	Non-Swim	Non-Swim	°F
21	None	2-Speed	2-Speed	2-Speed	2-Speed	4	3 - 4	Non-Swim	Buoyancy	°F
22	None	2-Speed	1-Speed	2-Speed	2-Speed	4	3 - 4	Buoyancy	Non-Swim	°F
23	None	2-Speed	1-Speed	2-Speed	2-Speed	4	3 - 4	Non-Swim	Buoyancy	°F
24	None	2-Speed	1-Speed	2-Speed	2-Speed	4	3 - 4	Non-Swim	Non-Swim	°F
25	Programmable Filtration + Polling	1-Speed	1-Speed	2-Speed	2-Speed	4	3 - 4	Non-Swim	Buoyancy	°F

System (and any replacement board) is shipped in Setup 1

Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending.

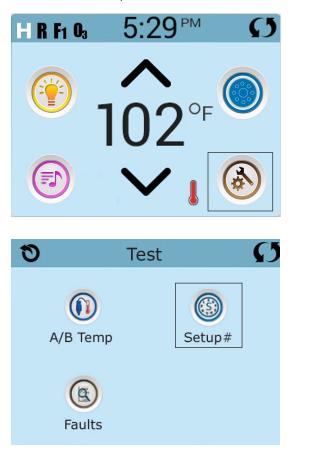


### **Changing Software Setups with spaTouch™ Icon-Driven Panels**

#### Test Menu Access (S1, Switch 1 ON) Service Technician ONLY. DANGER! HIGH VOLTAGE WILL BE ACCESSIBLE! SERVICE TECHNICIAN ONLY! While the system is running, move DIP Switch 1 (on S1 on the Main circuit board) to ON. The system will enter Test Mode. Moving DIP Switch 1 to OFF will exit Test Mode. 10 **To Change Software Setups:**

While in Test Mode, press the indicated icons to move from screen to screen.

Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending.



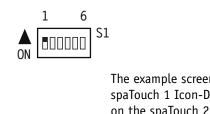


Once on the Setup Selection screen, press the Up or Down icon to select the desired Setup Number, then press the Check Mark icon to confirm and to have the spa restart.

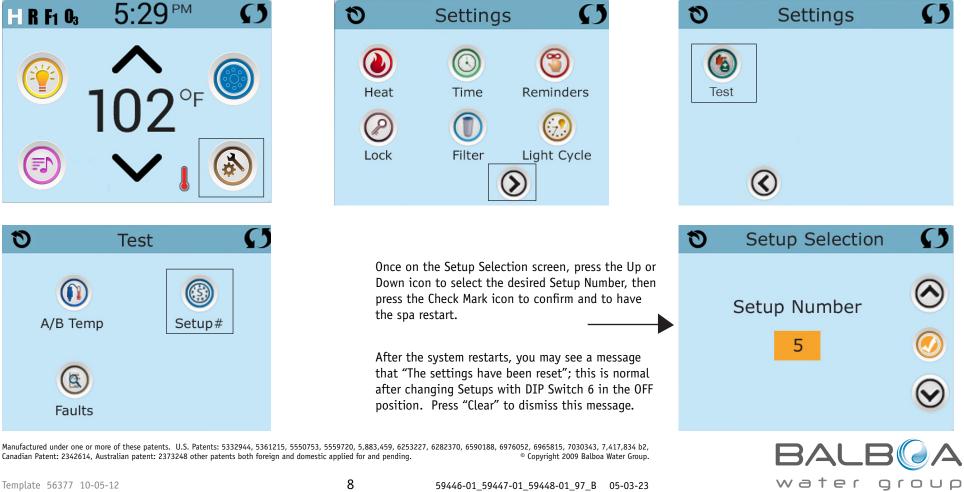
ON 🕨

S1

After the system restarts, you may see a message that "The settings have been reset"; this is normal after changing Setups with DIP Switch 6 in the OFF position. Press "Clear" to dismiss this message.



The example screens shown here are from the spaTouch 1 Icon-Driven Panel, but the screens on the spaTouch 2 Panel are similar. The main difference is that the spaTouch 2 display is wider.



# **Equipment Expansion**

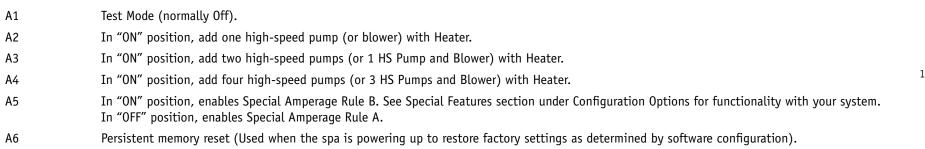
Control Connection Default Fuse	
Relay 1 (J101) Undefined None	
Relay 7/8 (J107) Pump 3 30A	
Relay 9/10 (J108)Pump 4uses same fuse as Pump 3 since it's on the same expander board as Pump 3	

Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending.



### **DIP Switch Functions**

#### **Fixed-fuction DIP Switches**



A2, A3, and A4 work in combination to determine the number of high-speed devices and blowers that can run before the heat is disabled. i.e. A2 and A3 in the ON position and A4 in the OFF position will allow the heater to operate with up to 3 high-speed pumps (or two HS Pumps and Blower) running at the same time. Heat is disabled when the fourth high-speed pump or blower is turned on.

**Note:** A2/A3/A4 all off = No heat with any high-speed pump or blower.

#### Assignable DIP Switches

A7 In "ON" position, enables a 5-minute cooldown for some gas heaters (Cooling Time B). In "OFF" position, enables a 1-minute cooldown for electric heaters (Cooling Time A).

Undesignated switches are not assigned a function.

Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending.



ON 🕨

S1

### **Jumper Definitions**

J109	GFCI Test/Trip Enable/Disable	J109 📡
	Note: This feature must be enabled in software as well.	
J91	Real Time Clock Enable/Disable	J91 🖸 🗖
	<i>Note:</i> This Jumper should NOT be shorted when the Control Panel can display time of day.	
J30	Do Not Use	
J31	Non Applicable on UL models	J31 ⊱
	(Used on CE models only)	
J29	Heater Disable Switch Connection. If J29 is shorted by any means, the heater will not run until J29 is no longer shorted.	J29 🛞
	If J29 is shorted during power-up "J29" will appear on the panel.	
	The message can be dismissed with a button press, and is the only control panel notification of J29 being shorted. No message is displayed if J29 is shorted after power-up, but the heater will not run until J29 is no longer shorted.	
	J29 expects a switch closure (not a voltage) as the command signal.	
	In some areas, a local power company may offer discounts based on voluntary "power shedding" devices that may be installe	d in conjunction with the spa.
J25, J26, J27	Heater Type Settings.	J27
	Note: Factory Configured do not change.	J25 🚰 🚰 J26
J24	Jumper on center two pins (230V) when heater is running at 240V.	230V
	Two Jumpers installed; one on left 2 pins and one on right 2 pins (115V) when heater is running at 120V.	J24 0 0 0 115 15V
Warning!		
	tting DIP switches or jumpers incorrectly may cause abnormal system behavior and/or damage to system components.	

Refer to Switchbank illustration on Wiring Configuration page for correct settings for this system.

Contact Balboa if you require additional configuration pages added to this tech sheet.

Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending.



59446-01\_59447-01\_59448-01\_97\_B 05-03-23

### **Replacement Parts**

#### PCBA:

59449-01 59136

N/A

#### HEATER(s):

Main PCBA:

Expander PCBA:

Plug + Click Heater Kit:	58083R16 5.5kW 800 Inc
	58089R16 5.5kW 825 Inc
	55624R16 5.5kW Titanium
Temp Sensor Kit:	53605

#### FUSES:

CABLES:

Part Number	Amperage*	Location
30136	30A	F6, F8, F1 (Expander)
26307	2A	F4
26905	0.5A	F3
26904	10A	F2, F7
26976	3.15A	F5

\* The amperages shown above are only intended for identifying fuses on our boards. They are not complete descriptions of those fuses. Please use the part numbers at the left to order fuses directly from Balboa.



General Features	
Feature	Default
Pump 1 in Filter Cycle (Circ Only)	No
Pump 1 Low Timer	15 Minutes
General Pump Timer	15 Minutes
Blower Timer	15 Minutes
Mister Timer	15 Minutes
Light Timer	240 Minutes
Circ (when enabled)	Programmable + Polling
Cleanup Cycle	30 Minutes
Cleaup as Preference setting	Yes
Ozone	With Heater Pump*
Ozone Suppression	OFF
Pump Purge	60 Seconds
Blower Purge	30 Seconds
Mister Purge	5 Seconds
Purge Type	Serial - Pumps at lowest speed

\* The heater Pump can be either a Circ Pump or Pump 1 Low.



#### **Temperature Features**

Feature	Default
Temperature Display	°F

All temperatures must be specified in °F. The system converts °F to °C dynamically. If Celsius is required for default settings, choose a desired °C value that (after rounding) corresponds to a Fahrenheit value.

°C	4	5	6	7	8	9	10	11	12	13	14	15	<i>16</i>	17	<i>18</i>	1 <b>9</b>	20	21	22
°F	39	41	43	45	46	48	50	52	54	55	57	59	61	63	64	66	68	70	72
°C	23	24	25	26	27	28	29	30	31	<i>32</i>	33	34	35	36	37	38	39	40	
°F	73	75	77	79	81	82	84	86	88	90	91	93	95	97	99	100	102	104	
Hi-Range Min. Set Temp 80°F																			
Hi-Range Max. Set Temp 104°F																			
Hi-F	ange l	Defaul	t Tem	p*				100°	F										
Lo-F	lange l	Min.S	et Tei	mp				50°F											
Lo-F	lange l	Max. S	Set Te	mp				99°F											
Lo-F	lange l	Defaul	t Tem	ıp*				70°F											
Free	ze Thr	esholo	ł					44°F											
Freeze Type Rotating - Pumps at Lowest Speed							d												
Tem	p Lock	Туре						Temp	+ Set	tings									

\*May be changed by end-user (if enabled)



C 11

-

### Time Features

\_

Feature	Default
Time Format*	12 Hour
Filter 1 Start Hour*	20:00 (8:00 PM)
Filter 1 Duration*	2 Hours
Filter Cycle 2 Default*	OFF
Filter 2 Start Hour*	08:00 (8:00 AM)
Filter 2 Duration*	15 Minutes
Light Cycle	Disabled
Light Cycle Default*	OFF
Light Cycle Start Hour*	21:00 (9:00 PM)
Light Cycle Duration*	15 Minutes
Cooling Time A	1 Minute
Cooling Time B	5 Minutes

\*May be changed by end-user (if enabled)

Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending. © Copyright 2009 Balboa Water Group.



#### **Reminder Features**

Feature	Default
Reminders Shown*	Yes
Check pH	OFF
Check Sanitizer	OFF
Clean Filter	30 Days
Test GFCI	65 Days
Drain Water	100 Days
Change Cartridge	OFF
Clean Cover	OFF
Treat Wood	OFF
Change Filter	365 Days

\*May be changed by end-user (if enabled)



Special Features Feature	Default
Special Amperage Rule A	No Limitation
Special Amperage Rule B	No Limitation
Drain Mode	Disabled
Demo Mode	Disabled
GFCI Trip	Enabled
Automatic GFCI Test	Disabled
Ozone Slaved to Heater Pump	Yes in circ setups No in non-circ setups
Dual Voltage Heater	Always Input Voltage
Safety Suction	Disabled
First Swim Dump	Dumen 1 in Sature 1 ( Dumen 2 in Sature 5 16 Dumen 2 in Sature 17 25
First Swim Pump	Pump 1 in Setups 1 -4, Pump 2 in Setups 5 - 16, Pump 3 in Setups 17 - 25
Swim Spa Behaviors	Manifold in Setups 1, 3, 5, 7, 9, 11, 13, 15, 17-25
	Manifold + Skip First Speed in Setups 2, 4, 6, 8, 10, 12, 14 & 16
Aux Swim Device	Pump 1 in Setups 7, 8, 11, 12, 15, 16 & 22; Pump 2 in Setups 17-19, 21, 23 & 25; Disabled in all other Setups
Mode Default	Ready Mode
Range Default	Low Range
-	



# **TP900 Panel Configuration**

#### **Button Layout Table**

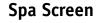
Feature #	Circ Setups with 3 or 4 Swim Pumps: Setups 1, 2 5 - 12	Non-Circ Setups with 3 or 4 Swim Pumps: Setups 3, 4 13 - 16	Circ Setups with 2 Swim Pumps: Setups 1, 2 5 - 12	Non-Circ Setups with 2 Swim Pumps: Setups 3, 4 13 - 16
A1	N/A	N/A	N/A	N/A
A2	Jets 1	Jets 1	Jets 1	Jets 1
A3	Light 1	Light 1	Jets 2	Jets 2
A4	(Circ Icon)	Undefined	Light 1	Light 1
A5	Undefined	Undefined	(Circ Icon)	Undefined
A6	Undefined	Undefined	Undefined	Undefined
A7	Undefined	Undefined	Undefined	Undefined
A8	Undefined	Undefined	Undefined	Undefined
A9	Undefined	Undefined	Undefined	Undefined
A10	Undefined	Undefined	Undefined	Undefined
11	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A
13	Undefined	Undefined	Undefined	Undefined
14	Undefined	Undefined	Undefined	Undefined
15	Undefined	Undefined	Undefined	Undefined
16	Undefined	Undefined	Undefined	Undefined

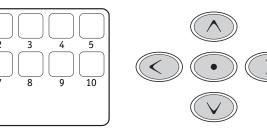
A Circ Icon will appear when a Circ Pump is configured.

Note: TP900 support is included only to enable proper function of the spaTouch panel.

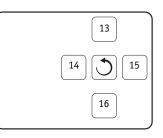
Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending. © Copyright 2009 Balboa Water Group.

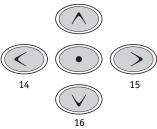
# BALB A





Shortcuts Screen





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#### Auxiliary Panel Features on Bank 1\*

Feature	Default
Aux Button A1	Swim Speed Down
Aux Button A2	Swim Speed Up
Aux Button A3	Swim Stop
Aux Button A4	Swim Pause

# Auxiliary Panel Features on Bank 2\*FeatureDefaultAux Button A5Surin Second II

Aux Button A5	Swim Speed Up
Aux Button A6	Swim Pause
Aux Button A7	Swim Speed Down
Aux Button A8	Swim Stop

\*Bank 1 is for use with an AX40 (horizontal layout) panel. Bank 2 is for use with an AX42 (round layout) panel.

So if using an AX40, plug it into J5, but if using an AX42, plug it into J8.

\*Bank 1 consists of J5 on the Main Circuit Board. Bank 2 consists of J8 on the Main Circuit Board. Aux Connection Splitter PN 25257 may be required.

Buttons that are assigned to equipment that is not defined in a Setup will not do anything in that Setup.

BALB A

#### **Auxiliary Panel Features**

#### AX10 Panels on Bank 1\*

 A1, AX10A1
 No 0/L
 52803

 A2, AX10A2
 No 0/L
 52804

 A3, AX10A3
 No 0/L
 52805

 A4, AX10A4
 No 0/L
 52806

#### AX10 Panels on Bank 2\*

A5, AX10A1	No O/L	52803
A6, AX10A2	No O/L	52804
A7, AX10A3	No O/L	52805
A8, AX10A4	No O/L	52806

No 0/L

No 0/L

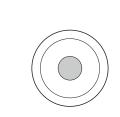
No 0/L

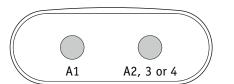
52800

52801

52802

52799





Call Customer Service for additional information about Auxiliary Panels.

\*Bank 1 consists on J5 and J6 on the Main Circuit Board. Bank 2 consists on J7 and J8 on the Main Circuit Board. Aux Connection Splitter PN 25257 may be required.

AX20 Auxiliary Panel plugged into Bank 1 will operate A1 + A2, A3 or A4. AX20 Auxiliary Panel plugged into Bank 2 will operate A5 + A6, A7 or A8.

AX40

**AX20** 

AX20 A1A2

AX20 A1A3

AX20 A1A4

AX40 No 0/L

A1 A2 A3 A4

AX40 Auxiliary Panel plugged into Bank 1 will operate A1 + A2, A3 and A4. AX40 Auxiliary Panel plugged into Bank 2 will operate A5 + A6, A7 and A8.

Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending.

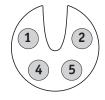


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#### **Remote Panel Features**

Feature	Default
Remote Button A1	Undefined
Remote Button A2	Undefined
Remote Button A3	Undefined
Remote Button A4	Undefined
Remote Button A5	Undefined
Remote Button A6	Undefined
Remote Button A7	Undefined
Remote Button A8	Undefined



Buttons that are assigned to equipment that is not defined in a Setup will not do anything in that Setup.

#### Remote Panel Part Number

Overlay Part Number

Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending.

