

BP20P4BC Tech Sheet

Customer: Balboa Water Group

Part Number: 56696-03 800 Incoloy 5.5kW
56697-03 825 Incoloy 5.5kW
56698-03 Titanium 5.5kW

Custom Box Overlay
Box Overlay Part Number N/A

UL System Model: BP20-BP20P4BC-AU
Software Version ID: M100_220 V65.0
Software Version: 65.0
File Name: BP2000_65.0_BP20P4BC_TP6.hex
Configuration Signature: 3C9424DE

Eng. Project Number: 5663

Control Panels:

spaTouch™ Mini	Any version (version 1.0 or later required for Clim8zone™ heat pump support)
spaTouch™ 3	Any version (version 3.2 or later required for Clim8zone™ heat pump support)
spaTouch™ 2	Any version (version 2.19 or later required for CHROMAZON™ support; version 2.36 or later required for Clim8zone™ heat pump support)
Icon spaTouch™	Any version (version 3.36 or later required for bba™ 2 fully integrated functionality)
Menued spaTouch™	Any version* (version 2.8 or later required for bba™ 2 integrated functionality)
TP800	Version 3.1* and later (Version 3.13 or later required for bba™; version 4.11 or later required for bba™ 2 integrated functionality)
TP700/TP740	Any version (version 1.27 or later required for Clim8zone™ heat pump support)
TP600	Version 2.7 and later (Version 2.12 or later required for bba™/bba™ 2 On/Off control via menu)



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.

System Revision History

Part #	EPN	Date	Originator	Changes Made
ZT000125	4412	11-20-14	BWG	New generic BP2000 system, with 4 Pumps, plus optional Blower and optional Circ.
56696 56697 56698	4412	12-11-14	BWG	Release to production.
56696-01 56697-01 56698-01	4776	10-27-16	BWG	Updated to latest software version, adding topside-intergrated bba™ 2 support. Also added TP600 support. Released to production.
56696-02 56697-02 56698-02	5098	04-21-21	BWG	Redesigned BP2000 board + updated software to support CHROMAZON™ & M8.
56696-03 56697-03 56698-03	5663	01-10-24	BWG	Update to support Clim8zone™ heat pump. Convert AV from 120V to 240V. Change DIP switches from #2 ON to #2 OFF only when Clim8zone™ is being used.

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

bba™ 2 / bba™ 3 is integrated into graphic display panels (TP700, TP800, TP900 and spaTouch™).
With TP600, use the "BT" entry on the menu to toggle bba™ 2 / bba™ 3 power On/Off.

Basic Functions Setup 1-8

Power Requirements:

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

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.

* 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.

Basic Functions Setup 1-8

System Outputs:

Pump 1	240VAC	2-Speed 1-Speed in Setups 4 & 5	12A max*	15-minute timer for High Speed, 15-Minute timer for Low Speed
		This is the heater pump in Setups 6-8 Must deliver 20 GPM through heater		
Pump 2	240VAC	2-Speed 1-Speed in Setups 2-5, 7-8	12A max*	15-minute timer
Pump 3	240VAC	1-Speed	10A max*	15-minute timer
Pump 4	240VAC	1-Speed	10A max*	15-minute timer
Blower	240VAC	1 Speed Unused in Setups 1, 3, 5, 6 & 8	5A max*	15-minute timer
Circ Pump	120VAC**	1-Speed	2A max*	Programmable Filtration Cycles + Polling
		This is the heater pump in Setups 1-5 Must deliver 20 GPM through heater		
Ozone	120VAC**		.5A max*	Slaved to Circ Pump in Setups 1-5 Independent in Setups 6-8
Spa Light	10VAC	On/Off	2A**** max	240-minute timer.
AV + C8Z***	240VAC	Hot	2A* + 8A max	Always on
Heater	5.5kW @ 240VAC max			

* These are individual maximums but depending on the electrical services they may need to be reduced.

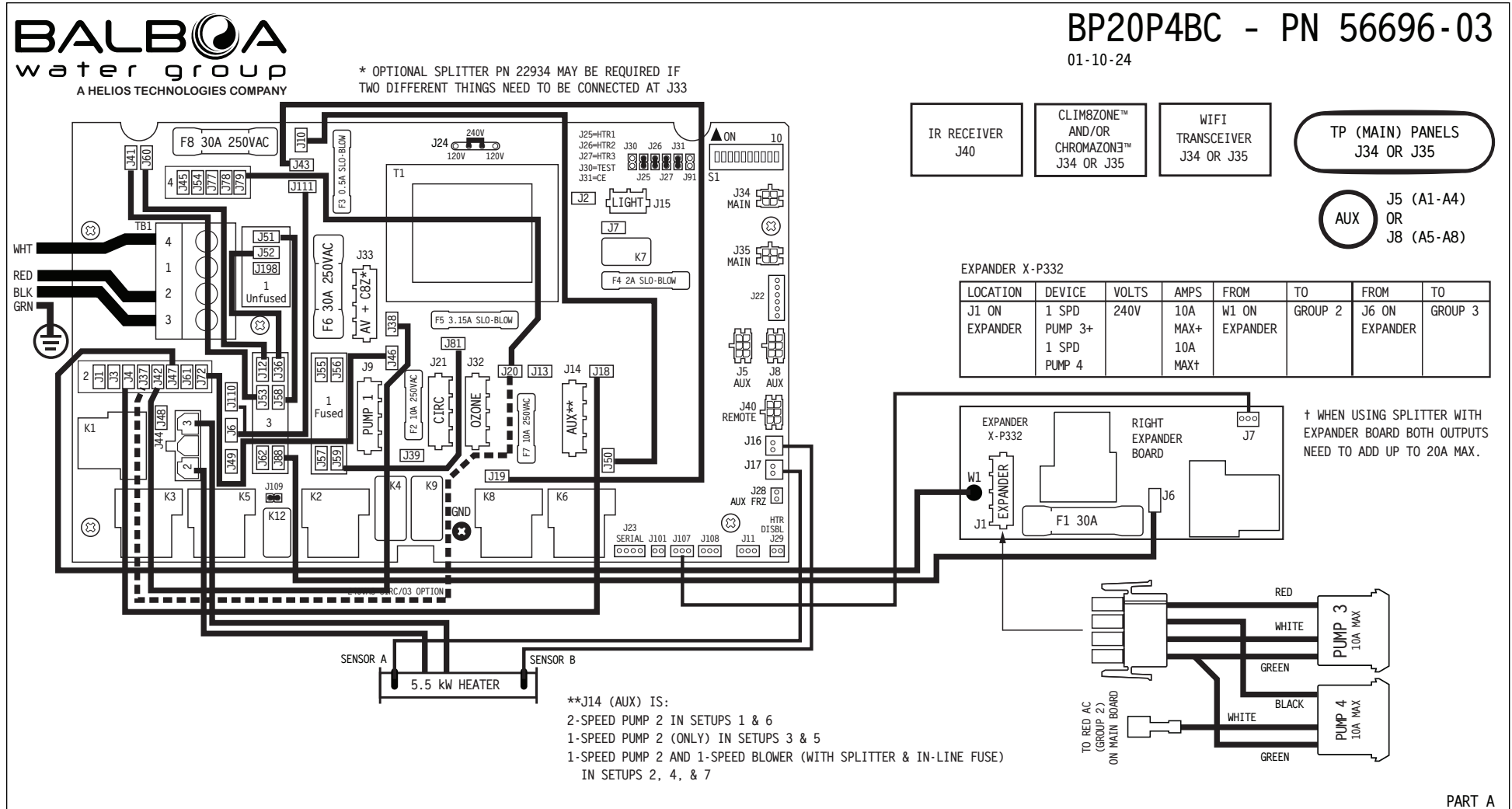
**Both the Circ pump and Ozone can be converted to 240V, however they will be the same voltage after conversion. (Both 120V or both 240V.)

*** 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 and CHROMAZON™.

Hardware Setup

Wiring Diagram



PART A

Hardware Setup

Settings

LOCATION	DEVICE	VOLTS	MAX AMPS	FROM	TO
J9	2/1-SP PUMP 1	240V	12A MAX	J46	GROUP 2
J14	AUX (2/1-SP P2 + BL)	240V	12A MAX + 5A MAX	J18	GROUP 2
	J14 LINE 1 CONNECTION			J43 J10	J19 J50
J15	SPA LIGHT	10V	2A*		
J21	CIRC PUMP	120V**	2A MAX	J20	GROUP 4
J32	OZONE		0.5A		
	CIRC AND OZONE LINE 1 CONNECTION			J81	J59
J33	AV + CLIM8ZONE™ (C8Z)	240V	2A + 8A	J38	GROUP 2
J44	HEATER	240V	5.5 kW		



SWITCHBANK S1 OFF

SWITCHBANK S1 ON

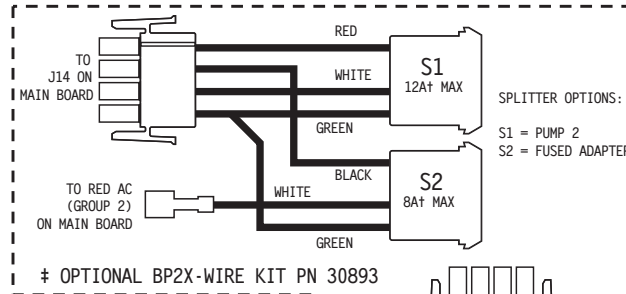
TEST MODE OFF	◀ A1	TEST MODE ON
DON'T ADD 1 HS PUMP W/HTR	A2***▶	ADD 1 HS PUMP WITH HEAT
DON'T ADD 2 HS PUMPS W/HTR	◀ A3	ADD 2 HS PUMPS WITH HEAT
DON'T ADD 4 HS PUMPS W/HTR	◀ A4	ADD 4 HS PUMPS WITH HEAT
SPECIAL AMPERAGE RULE A	◀ A5	SPECIAL AMPERAGE RULE B
STORE SETTINGS**	◀ A6	MEMORY RESET**
1 MIN HTR COOLDOWN (ELEC)	◀ A7	5 MIN HTR COOLDOWN (GAS)
NOT ASSIGNED	◀ A8	NOT ASSIGNED
NOT ASSIGNED	◀ A9	NOT ASSIGNED
NOT ASSIGNED	◀ A10	NOT ASSIGNED

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

* 2A LIMIT IS SHARED BY J15 SPA LIGHT AND CHROMAZONE™
 ** FOR 240V CIRC PUMP AND OZONE, CONNECT J20 TO GROUP 2

USE COPPER CONDUCTORS ONLY.
 EMPLOYER UNIQUEMENT DES CONDUCTEURS DE CUIVRE.
 #6 AWG MIN. WIRE = 90°

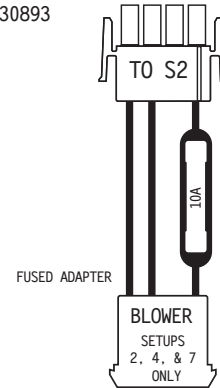
FOR SUPPLY CONNECTIONS, USE CONDUCTORS SIZED ON THE BASIS OF
 60°C AMPACITY BUT RATED MINIMUM OF 90°C.



‡ OPTIONAL BP2X-WIRE KIT PN 30893

SETUP #	CIRC PUMP	PUMP 1	PUMP 2	PUMP 3	PUMP 4	BLOWER	TEMP SCALE
1	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	1-SPEED	1-SPEED	NONE	°F
2	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	1-SPEED	1-SPEED	1-SPEED	°F
3	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	1-SPEED	1-SPEED	NONE	°F
4	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	1-SPEED	1-SPEED	1-SPEED	°F
5	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	1-SPEED	1-SPEED	NONE	°F
6	NONE	2-SPEED	2-SPEED	1-SPEED	1-SPEED	NONE	°F
7	NONE	2-SPEED	1-SPEED	1-SPEED	1-SPEED	1-SPEED	°F
8	NONE	2-SPEED	1-SPEED	1-SPEED	1-SPEED	NONE	°F

INSTEAD OF SETUP #5, THIS SYSTEM IS CONFIGURED IN SETUP #:



SETUPS 2, 4 & 7 REQUIRE THE ADDITIONAL FUSED ADAPTER FOR BLOWER OUTPUT

***IMPORTANT NOTE:

WHEN USING CLIM8ZONE™ (C8Z), SWITCH #2 MUST BE TURNED OFF.

TORQUE RANGE FOR MAIN TERMINAL BLOCK (TB1):
 27-30 IN. LBS. (31.1-34.5 kg cm)

CONNECT ONLY TO CIRCUITS PROTECTED BY A CLASS A GFCI.

A DISCONNECTING MEANS MUST BE INSTALLED WITHIN SIGHT FROM THE EQUIPMENT AND AT LEAST 5 FEET (1.52 M) FROM THE INSIDE WALLS OF THE POOL, SPA, OR HOT TUB.

TOTAL OUTPUT AMP DRAW NOT TO EXCEED MAX INPUT RATING OF SPA
 USE EARTH GROUND CONNECTIONS AS INDICATED INSIDE THE SYSTEM ENCLOSURE

BP20P4BC - PN 56696-03

01-10-24

PART B

Setup Reference Table

Setup #	Circ Pump	Pump 1	Pump 2	Pump 3	Pump 4	Blower	Temp Scale
1	Programmable Filtration + Polling	2-Speed	2-Speed	1-Speed	1-Speed	None	°F
2	Programmable Filtration + Polling	2-Speed	1-Speed	1-Speed	1-Speed	1-Speed	°F
3	Programmable Filtration + Polling	2-Speed	1-Speed	1-Speed	1-Speed	None	°F
4	Programmable Filtration + Polling	1-Speed	1-Speed	1-Speed	1-Speed	1-Speed	°F
5	Programmable Filtration + Polling	1-Speed	1-Speed	1-Speed	1-Speed	None	°F
6	None	2-Speed	2-Speed	1-Speed	1-Speed	None	°F
7	None	2-Speed	1-Speed	1-Speed	1-Speed	1-Speed	°F
8	None	2-Speed	1-Speed	1-Speed	1-Speed	None	°F

System (and any replacement board)
is shipped in Setup 5

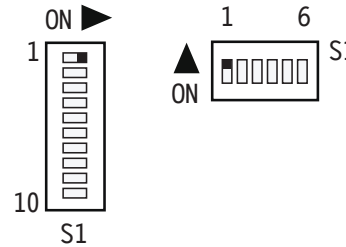
Color Key	Output
	XP332 and Splitter
	J14 (Aux) and splitter and in-line Blower fuse
	J14 (Aux) on Main Board

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!

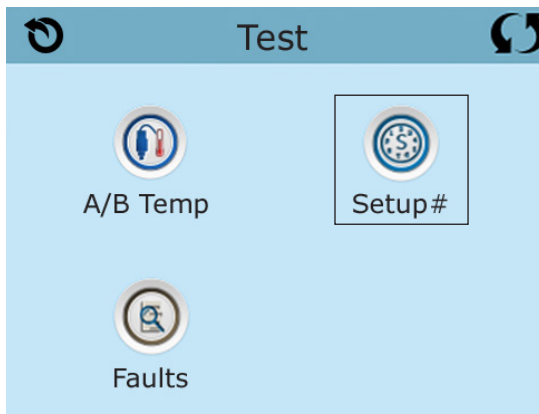
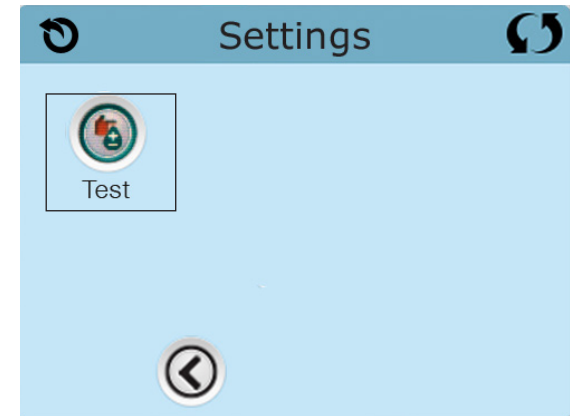
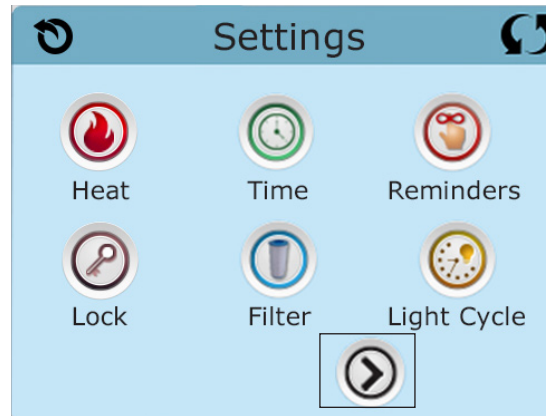
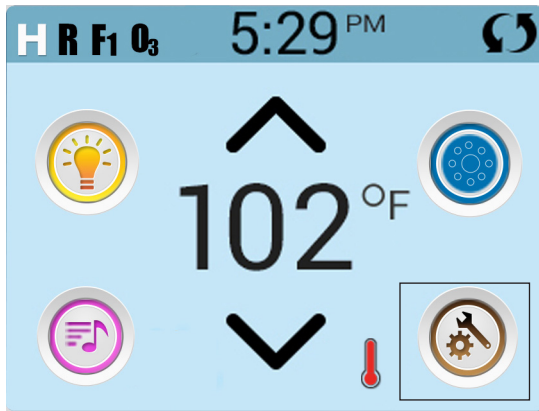
While the system is running, move DIP Switch 1 (on S1 on the Main circuit board) to ON. The system will enter Test Mode. Moving DIP Switch 1 to OFF will exit Test Mode.



To Change Software Setups:

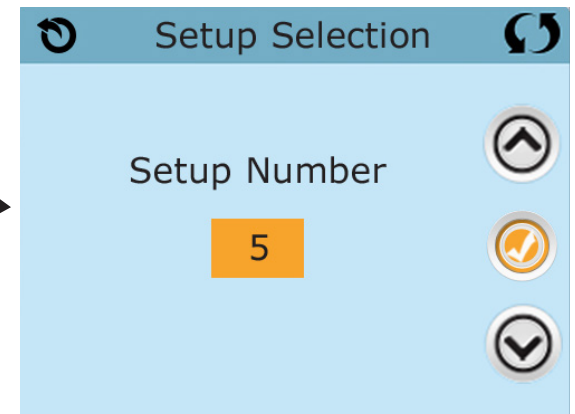
While in Test Mode, press the indicated icons to move from screen to screen.

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.



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.

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.



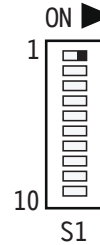
Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending. © Copyright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

Changing Software Setups with TP800 / TP900 / spaTouch™ Menued Panel

Test Menu Access (S1, Switch 1 ON) *Service Technician ONLY.*

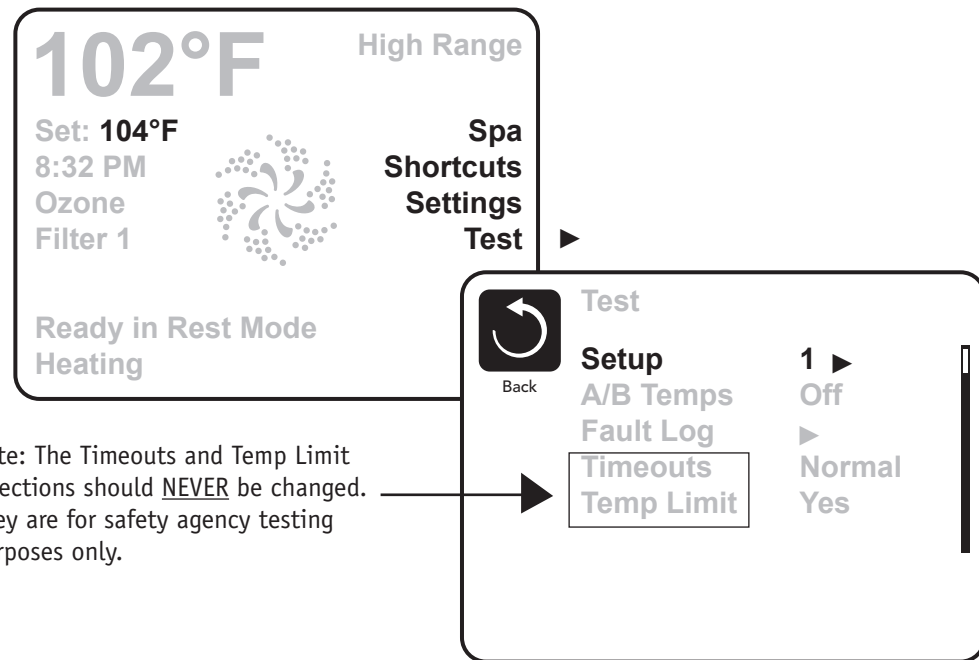
DANGER! HIGH VOLTAGE WILL BE ACCESSIBLE! SERVICE TECHNICIAN ONLY!

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.



Software Setups

Under the TEST Menu, the Setup screen will allow changing the Setup from 1 to any number established by the Manufacturer.
Changing the Setup may require wiring changes as well.



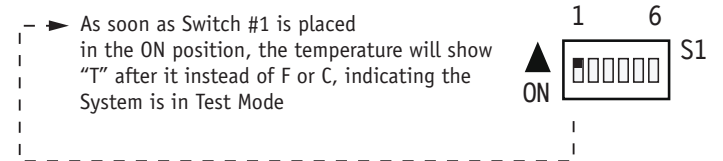
Note: The Timeouts and Temp Limit selections should NEVER be changed. They are for safety agency testing purposes only.

Changing Software Setups with TP600 / TP400

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.



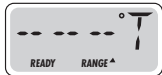
Software Setups

Under the TEST Menu, the Setup screen will allow changing the Setup from 1 to any number established by the Manufacturer. Changing the Setup may require wiring changes as well.

You will have 1 minute to complete the setup change after you manually exit Priming Mode. (Once familiar with the process, the Setup change should take less than 15 seconds.)



When the panel displays RUN PMPS PURG AIR, press any Temperature button ONCE to exit Priming Mode. You should see "---T" where the T indicates the system is in Test Mode.



Continued on Next Page.

Changing Software Setups with TP600 / TP400 Continued

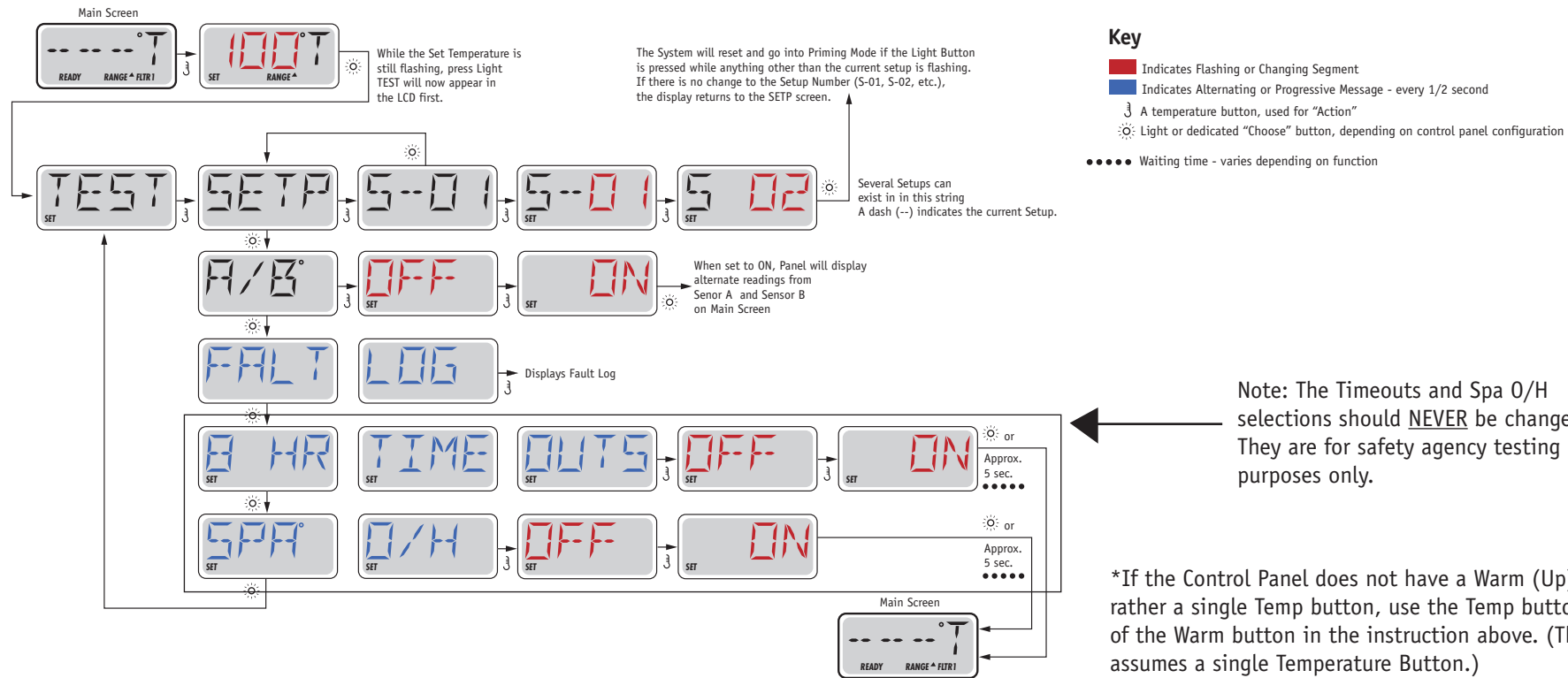
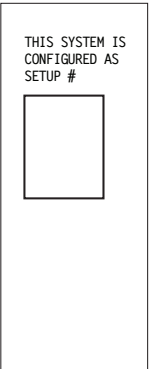
Again, **You will have 1 minute** to complete the setup change after you manually exit Priming Mode.

Immediately after exiting Priming Mode, press this sequence of buttons: Warm*, Light, Warm, Warm, Warm, Warm. Continue to press Warm until the display shows the Setup Number (S-01, S-02, etc.) you want to switch to. When the correct setup number is showing, press Light once, and the system will reset, using the newly-selected Setup from that point on.

Move DIP Switch 1 to the OFF position to take the spa out of Test Mode. °F or °C will replace °T.

Using a permanent marker, write the Setup number on the Setup label mounted inside the system lid (right). This is very important to any service person in the future who may need to replace a circuit board or system and needs to change the Setup on a replacement part while in the field.

NOTE: Changing the Setup may require wiring changes as well - refer to the wiring diagram or wiring diagram addendum.



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.



Equipment Expansion

Expansion Features

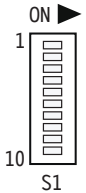
Control Connection

	Default	Fuse
Relay 1 (J101)	Undefined	None
Relay 7/8 (J107)	See Below	30A
	1-Speed Pump 3 And 1-Speed Pump 4 (With Splitter)	
Relay 9/10 (J108)	Undefined	None

DIP Switch Functions

Fixed-function DIP Switches

- | | |
|----|--|
| A1 | Test Mode (normally Off). |
| A2 | In "ON" position, add one high-speed pump (or blower) with Heater. |
| A3 | In "ON" position, add two high-speed pumps (or 1 HS Pump and Blower) with Heater. |
| A4 | In "ON" position, add four high-speed pumps (or 3 HS Pumps and Blower) with Heater. |
| A5 | In "ON" position, enables Special Amperage Rule B. See Special Features section under Configuration Options for functionality with your system.
In "OFF" position, enables Special Amperage Rule A. |
| A6 | Persistent memory reset (Used when the spa is powering up to restore factory settings as determined by software configuration). |



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.

Jumper Definitions

J109	GFCI Test/Trip Enable/Disable Note: <i>This feature must be enabled in software as well.</i>	J109 
J91	Real Time Clock Enable/Disable Note: <i>This Jumper should NOT be shorted when the Control Panel can display time of day.</i>	J91 
J30	Do Not Use	
J31	Non Applicable on UL models <i>(Used on CE models only)</i>	J31 
J29	Heater Disable Switch Connection. If J29 is shorted by any means, the heater will not run until J29 is no longer shorted. 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 installed in conjunction with the spa.	J29 
J25, J26, J27	Heater Type Settings. Note: <i>Factory Configured do not change.</i>	J25  J26  J27 
J24	Jumper on center two pins (230V) when heater is running at 240V. Two Jumpers installed; one on left 2 pins and one on right 2 pins (115V) when heater is running at 120V.	J24     230V 115V 15V

Warning!

Setting 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. © Copyright 2009 Balboa Water Group.

Replacement Parts

PCBA:

Main PCBA: 59544-01
Expander PCBA: 59097

HEATER(s):

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

CABLES:

25093 P3/P4 Adapter

FUSES:

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.

BP2000 Configuration Options

General Features

Feature	Default
Pump 1 in Filter Cycle (Circ Only)	No
Pump 1 Low Timer	<i>15 Minutes</i>
General Pump Timer	15 Minutes
Blower Timer	15 Minutes
Mister Timer	15 Minutes
Light Timer	240 Minutes
Circ (when enabled)	Programmable + Polling
Cleanup Cycle	<i>30 Minutes</i>
Cleanup as Preference setting	<i>Yes</i>
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.

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.

BP2000 Configuration Options

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	16	17	18	19	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	32	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-Range Default Temp*	100°F
Lo-Range Min. Set Temp	50°F
Lo-Range Max. Set Temp	99°F
Lo-Range Default Temp*	70°F
Freeze Threshold	44°F
Freeze Type	Rotating - Pumps at Lowest Speed
Temp Lock Type	Temp + Settings

*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.

BP2000 Configuration Options

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.

BP2000 Configuration Options

Reminder Features

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

**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.

BP2000 Configuration Options

Special Features

Feature

Default

Special Amperage Rule A

No Limitation

Special Amperage Rule B

3 high-speed pumps max. Blower turns off with 3 high speed pumps

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

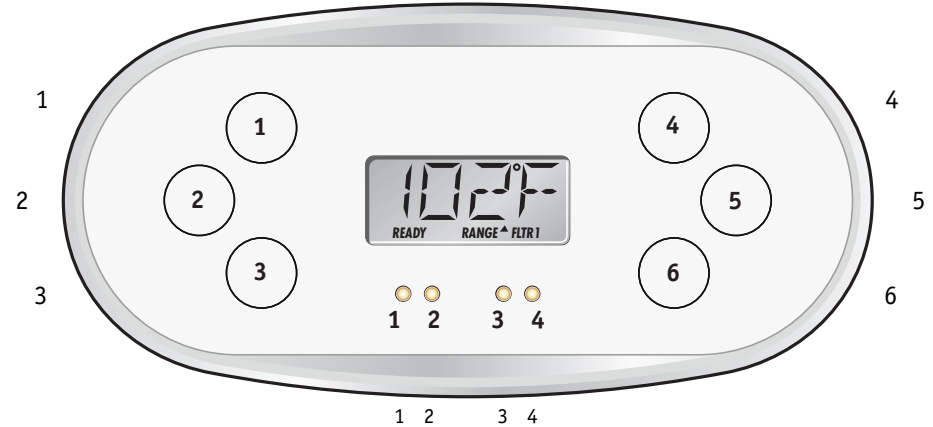
Safety Suction

Disabled

TP600 Panel Configuration

Button Layout Table

Button #	Setups 1 - 8
1	Jets 1
2	Jets 2
3	Jets 3
4	Temperature
5	Light 1
6	Jets 4
LED 1	Jets 1
LED 2	Jets 2
LED 3	Light 1
LED 4	Heat On



In all Setups, the button labeled “AUX” on overlay 13579 (shown below) controls Jets 4.

In Setups 2, 4, 7 (which have a Blower), an AX10A3 auxiliary panel plugged into J5 (Bank 1) must be used to control the Blower.



TP800 Panel Configuration

Button Layout Table

Feature #	Blower & Circ Setups 2 & 4	NO Blower & Circ Setups 1, 3, & 5	Blower & No Circ Setup 7	NO Blower & No Circ Setups 6 & 8
A1	N/A	N/A	N/A	N/A
A2	Jets 1	Jets 1	Jets 1	Jets 1
A3	Jets 2	Jets 2	Jets 2	Jets 2
A4	Jets 3	Jets 3	Jets 3	Jets 3
A5	Jets 4	Jets 4	Jets 4	Jets 4
A6	Blower	Light 1	Blower	Light 1
A7	Light 1	Invert	Light 1	Invert
A8	Invert	(Circ Icon)	Invert	Undefined
A9	(Circ Icon)	Undefined	Undefined	Undefined
A10	Undefined	Undefined	Undefined	Undefined
A11	N/A	N/A	N/A	N/A
A12	N/A	N/A	N/A	N/A
A13	Jets 1	Jets 1	Jets 1	Jets 1
A14	Jets 2	Jets 2	Jets 2	Jets 2
A15	Jet 3	Jet 3	Jet 3	Jet 3
A16	Jet 4	Jet 4	Jet 4	Jet 4
B1	Jets 1	Jets 1	Jets 1	Jets 1
B2	Jets 2	Jets 2	Jets 2	Jets 2
B3	Blower	Jets 3	Blower	Jets 3
B4	Light 1	Light 1	Light 1	Light 1

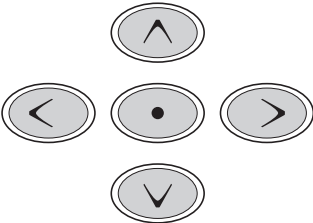
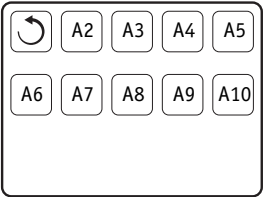
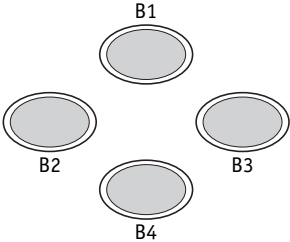
Overlay Part Number 12512.



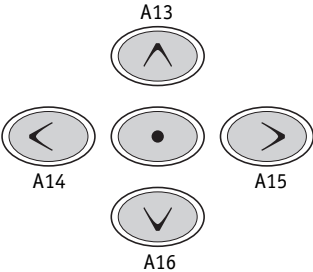
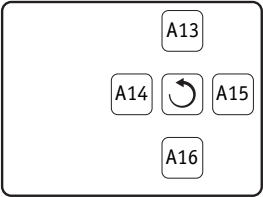
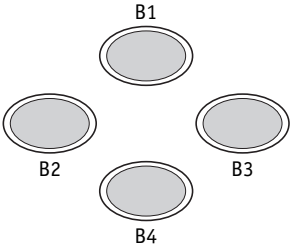
Button labeled "AUX" controls Blower in Setups 2, 4, & 7, and controls Jets 3 in all other Setups.

TP800 Panel Configuration

Spa Screen



Shortcuts Screen



Note: Buttons 11 and 12 are not used in this configuration.
Button 1 is fixed.

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

TP900 Panel Configuration

Button Layout Table

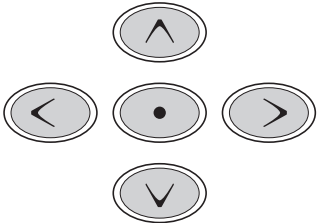
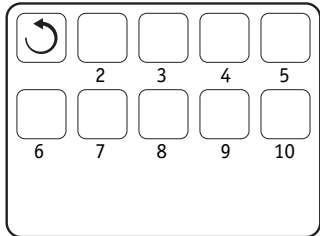
Feature #	Blower & Circ Setups 2 & 4	NO Blower & Circ Setups 1, 3, & 5	Blower & No Circ Setup 7	NO Blower & No Circ Setups 6 & 8
A1	N/A	N/A	N/A	N/A
A2	Jets 1	Jets 1	Jets 1	Jets 1
A3	Jets 2	Jets 2	Jets 2	Jets 2
A4	Jets 3	Jets 3	Jets 3	Jets 3
A5	Jets 4	Jets 4	Jets 4	Jets 4
A6	Blower	Light 1	Blower	Light 1
A7	Light 1	Invert	Light 1	Invert
A8	Invert	(Circ Icon)	Invert	Undefined
A9	(Circ Icon)	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	Jets 1	Jets 1	Jets 1	Jets 1
14	Jets 2	Jets 2	Jets 2	Jets 2
15	Jets 3	Jets 3	Jets 3	Jets 3
16	Jet 4	Jet 4	Jet 4	Jet 4

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

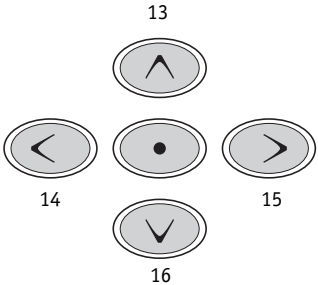
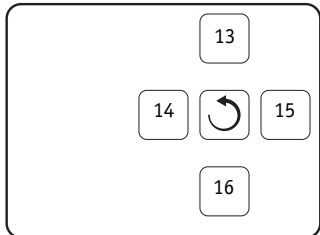
TP900 Panel Configuration

Button #
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Spa Screen



Shortcuts Screen



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.

BP2000 Configuration Options

Auxiliary Panel Features on Bank 1*

Feature	Default
Aux Button A1	Jets 1
Aux Button A2	Jets 2
Aux Button A3	Blower
Aux Button A4	Light

Auxiliary Panel Features on Bank 2*

Feature	Default
Aux Button A5	Jets 1
Aux Button A6	Jets 2
Aux Button A7	Jets 3
Aux Button A8	<i>Jets 4</i>

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

*Bank 1 consists of J5 on the Main Circuit Board.

Bank 2 consists of J8 on the Main Circuit Board.

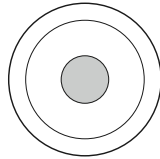
Aux Connection Splitter PN 25257 may be required.

BP2000 Configuration Options

Auxiliary Panel Features

AX10 Panels on Bank 1*

A1, AX10A1	No O/L	52803
A2, AX10A2	No O/L	52804
A3, AX10A3	No O/L	52805
A4, AX10A4	No O/L	52806



Call Customer Service for additional information about Auxiliary Panels.

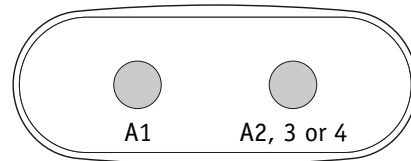
AX10 Panels on Bank 2*

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

*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.

AX20

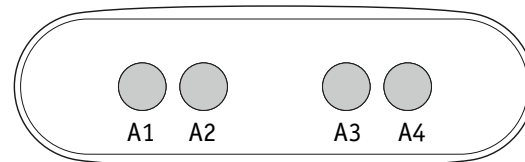
AX20 A1A2	No O/L	52800
AX20 A1A3	No O/L	52801
AX20 A1A4	No O/L	52802



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

AX40	No O/L	52799
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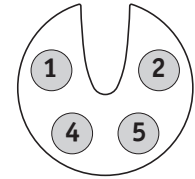


AX40 Auxiliary Panel plugged into Bank 1 will operate A1 + A2, A3 and A4.
AX40 Auxiliary Panel plugged into Bank 2 will operate A5 + A6, A7 and A8.

BP2000 Configuration Options

Remote Panel Features

Feature	Default
Remote Button A1	Jets 1
Remote Button A2	Jets 2
Remote Button A3	<i>Undefined</i>
Remote Button A4	<i>Jets 3</i>
Remote Button A5	<i>Jets 4</i>
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. © Copyright 2009 Balboa Water Group.