Tech Sheet

Customer: **Balboa Water Group**

800 Incoloy 5.5kW
825 Incoloy 5.5kW
Titanium 5.5kW
Titanium 4kW

Custom Box Overlay	☐
Box Overlay Part Number	N/A
Software Version	
ID: Software	M100_220 V43.0
Version: File	43.0
Name:	BP2000_43.0_BP2000G1_18.hex
Configuration Signature:	51800C6B
Eng. Project Number:	5098

Control Panels:

spaTouch™2	Any version (version 2.0 or later required for bba™2 fully integrated functionality; version 2.19 or later required for CHROMAZON∃™ 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)
TP900	Version 3.1 and later (Version 3.13 or later required for bba™)
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)
TP600	Version 2.7 and later (Version 2.12 or later required for bba™/bba™2 On/Off control via menu)

System Revision History

Part #	EPN	Date	Originator	Changes Made
56377 56377 56377	3936	10-08-12	BWG	Initial Release BP2000G1
56377-01 56377-01 56377-01	4008	01-29-13	BWG	Add Setups 17 and 18, Add TP600 Support
56377-02 56377-02 56377-02	4132	09-26-13	BWG	Updated to latest software version. Adds GFCI Trip (but not GFCI Automatic Test).
"	4132	01-30-14	BWG	Updated to latest software version, adding topside-intergrated bba™ support. Released to production.
56377-03 56377-03 56377-03 56589-01	4776	10-12-16	BWG	Updated to latest software version, adding topside-intergrated bba™2 support. Released to production.
56377-04 56377-04 56377-04 56589-02	5098	01-21-19	BWG	Redesigned BP2000 board. + updated software to support CHROMAZONƎ™.

bba™ & bba™2 (Balboa Bluetooth Amp) connection is documented seperately.

bba™ is integrated into graphic display panels (TP800, TP900 and spaTouch™). With TP600/TP400, use the "BT" entry on the menu to toggle bba™ power On/Off.

bba™2 is integrated into graphic display panels (TP800, TP900 and spaTouch™). With TP600/TP400, use the "BT" entry on the menu to toggle bba™2 power On/Off.

Basic Functions Setup 1-18

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 J11 prior to performing HiPot test. Failure to disconnect may cause a false failure of the test. Reconnect terminal to J11 after successful completion of HiPot test.

Basic Functions Setup 1-18

System Ouputs:

Pump 1	240VAC	2-Speed	12A max	15-minute timer for High Speed, 15-Minute timer for Low Speed 1-Speed in Setups 12, 14, 17 This is the heater pump in Setups 1–6, 15, 18 Must deliver 20 GPM through heater
Pump 2	240VAC	2-Speed	12A† max	15-minute timer 1-Speed in Setups 5, 6, 11–14, 17, 18
Pump 3	240VAC	2-Speed	12A† max	15-minute timer 2-Speed in Setups 1, 7 1-Speed in Setups 2, 5, 6, 8, 11–16 Unused in Setups 3, 4, 9, 10, 17, 18
Blower	240VAC	1 Speed	4A max	15-minute timer Unused in Setups 1, 2, 4, 6–8, 10, 13, 14
Circ Pump	120VAC**	1-Speed	2A max	Programmable Filtration Cycles + Polling This is the heater pump in Setups 7–14, 16, 17 Must deliver 20 GPM through heater
Ozone	120VAC**		.5A max	Slaved to Circ Pump in Setups 7-14, 16, 17 Independent in Setups 1-6, 15, 18
Spa Light	10VAC	On/Off	2A* max	240-minute timer.
A/V (Stereo)	120VAC	Hot	4A max	Always on
Heater	5.5kW @ 240VAC max			

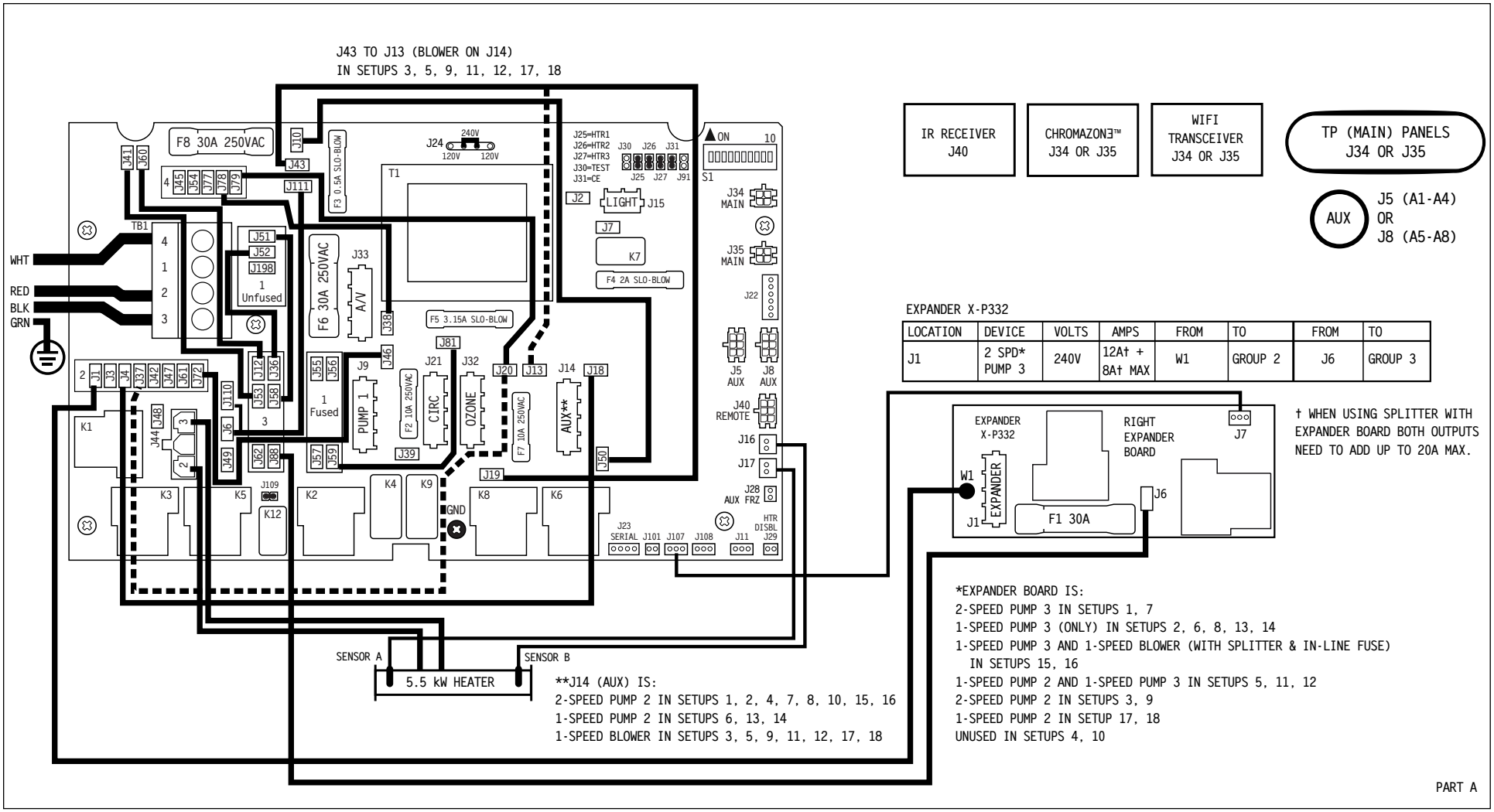
**Both the Circ pump and Ozone can be converted to 240V, however they will be the same voltage after conversion. (Both 120V or both 240V.)

† In Setups 5, 11, and 12, where pump 2 and pump 3 are both on the expander board, oump 2 and pump 3 must add up to no more than 20A total, and thus they cannot be both 12A max in that case.

* 2A max limit is shared by On/Off Spa Light and CHROMAZON∃™.

Hardware Setup

Wiring Diagram



EXPANDER X-P332

LOCATION	DEVICE	VOLTS	AMPS	FROM	TO	FROM	TO
J1	2 SPD* PUMP 3	240V	12A† + 8A† MAX	W1	GROUP 2	J6	GROUP 3

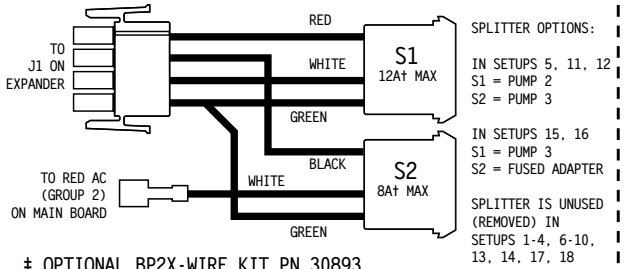
Hardware Setup

Settings

LOCATION	DEVICE	VOLTS	MAX AMPS	FROM	TO
J9	2-SP PUMP 1	240V	12A MAX	J46	GROUP 2
J14	1-SP PUMP 2	240V	12A MAX	J18	GROUP 2
	J14 LINE 1 CONNECTION			J43	J19
				J10	J50
J15	SPA LIGHT	10V	2A*		
J21	CIRC PUMP	120V**	2A MAX	J20	GROUP 4
J32	OZONE		1A		
	CIRC AND OZONE LINE 1 CONNECTION			J81	J59
J33	TV / AV	120V	3A	J38	GROUP 4
J44	HEATER	240V	5.5 kW		

* 2A LIMIT IS SHARED BY J15 SPA LIGHT AND CHROMAZONE™

** FOR 240V CIRC PUMP AND OZONE, CONNECT J20 TO GROUP 2



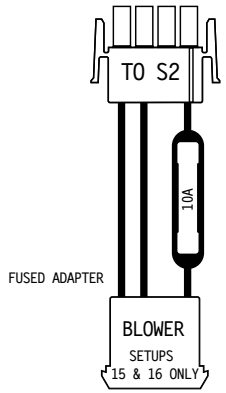
SPLITTER OPTIONS:

IN SETUPS 5, 11, 12
S1 = PUMP 2
S2 = PUMP 3

IN SETUPS 15, 16
S1 = PUMP 3
S2 = FUSED ADAPTER

SPLITTER IS UNUSED (REMOVED) IN SETUPS 1-4, 6-10, 13, 14, 17, 18

‡ OPTIONAL BP2X-WIRE KIT PN 30893



SETUPS 15 AND 16 REQUIRE THE ADDITIONAL FUSED ADAPTER FOR BLOWER OUTPUT

† WHEN USING SPLITTER WITH EXPANDER BOARD FOR BOTH PUMP 2 AND PUMP 3, BOTH OUTPUTS NEED TO ADD UP TO 20A MAX.

SETUP #	CIRC PUMP	PUMP 1	PUMP 2	PUMP 3	BLOWER	TEMP SCALE
1	NONE	2-SPEED	2-SPEED	2-SPEED	NONE	°F
2	NONE	2-SPEED	2-SPEED	1-SPEED	NONE	°F
3	NONE	2-SPEED	2-SPEED	NONE	1-SPEED	°F
4	NONE	2-SPEED	2-SPEED	NONE	NONE	°F
5‡	NONE	2-SPEED	1-SPEED	1-SPEED	1-SPEED	°F
6	NONE	2-SPEED	1-SPEED	1-SPEED	NONE	°F
7	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	2-SPEED	NONE	°F
8	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	1-SPEED	NONE	°F
9	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	NONE	1-SPEED	°F
10	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	NONE	NONE	°F
11‡	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	1-SPEED	1-SPEED	°F
12‡	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	1-SPEED	1-SPEED	°F
13	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	1-SPEED	NONE	°F
14	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	1-SPEED	NONE	°F
15‡	NONE	2-SPEED	2-SPEED	1-SPEED	1-SPEED	°F
16‡	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	1-SPEED	1-SPEED	°F
17	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	NONE	1-SPEED	°F
18	NONE	2-SPEED	1-SPEED	NONE	1-SPEED	°F

PUMP 1 LOW TIMEOUT IS 15 MINUTES.

‡SETUPS 5, 11, 12, 15 AND 16 REQUIRE BP2X-WIRE KIT PN30893

INSTEAD OF SETUP #1, THIS SYSTEM IS CONFIGURED IN SETUP #:

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 A
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.

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.

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

Setup Reference Table

Setup #	Circ Pump	Pump 1	Pump 2	Pump 3	Blower	Temp Scale
1	None	2-Speed	2-Speed	2-Speed	None	°F
2	None	2-Speed	2-Speed	1-Speed	None	°F
3	None	2-Speed	2-Speed	None	1-Speed	°F
4	None	2-Speed	2-Speed	None	None	°F
5	None	2-Speed	1-Speed	1-Speed	1-Speed	°F
6	None	2-Speed	1-Speed	1-Speed	None	°F
7	Programmable Filtration + Polling	2-Speed	2-Speed	2-Speed	None	°F
8	Programmable Filtration + Polling	2-Speed	2-Speed	1-Speed	None	°F
9	Programmable Filtration + Polling	2-Speed	2-Speed	None	1-Speed	°F
10	Programmable Filtration + Polling	2-Speed	2-Speed	None	None	°F
11	Programmable Filtration + Polling	2-Speed	1-Speed	1-Speed	1-Speed	°F
12	Programmable Filtration + Polling	1-Speed	1-Speed	1-Speed	1-Speed	°F
13	Programmable Filtration + Polling	2-Speed	1-Speed	1-Speed	None	°F
14	Programmable Filtration + Polling	1-Speed	1-Speed	1-Speed	None	°F
15	None	2-Speed	2-Speed	1-Speed	1-Speed	°F
16	Programmable Filtration + Polling	2-Speed	2-Speed	1-Speed	1-Speed	°F
17	Programmable Filtration + Polling	1-Speed	1-Speed	None	1-Speed	°F
18	None	2-Speed	1-Speed	None	1-Speed	°F

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

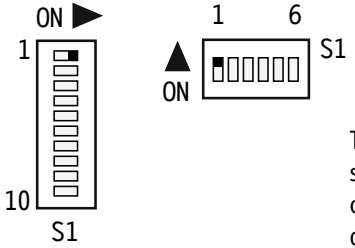
System (and any replacement board) **is shipped in Setup 1**

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!

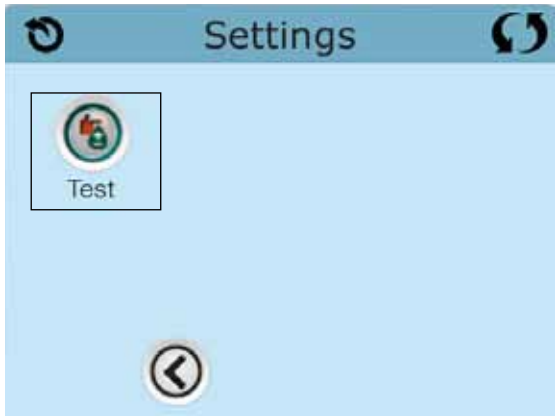
While the system is running, move DIP Switch 1 (on S1 on the Main circuit board) to ON. The system will enter Test Mode.
Moving DIP Switch 1 to OFF will exit Test Mode.

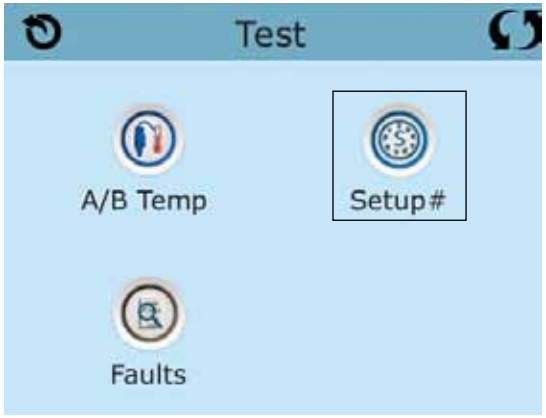


The example screens shown here are from the spaTouch 1 Icon-Driven Panel, but the screens on the spaTouch 2 Panel are similar. The main difference is that the spaTouch 2 display is wider.

To Change Software Setups:

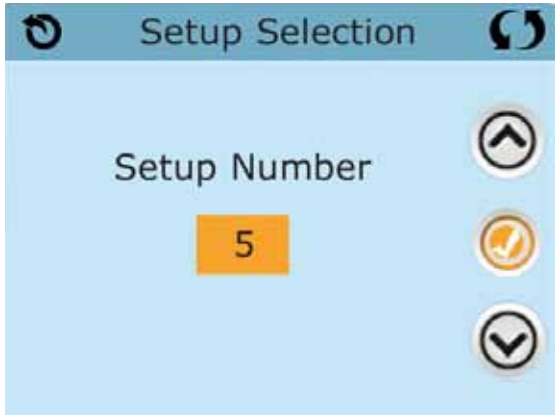
While in Test Mode, press the indicated icons to move from screen to screen.





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.

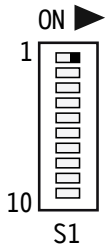


Changing Software Setups with TP800 / TP900 / spaTouch™ Menued Panel

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

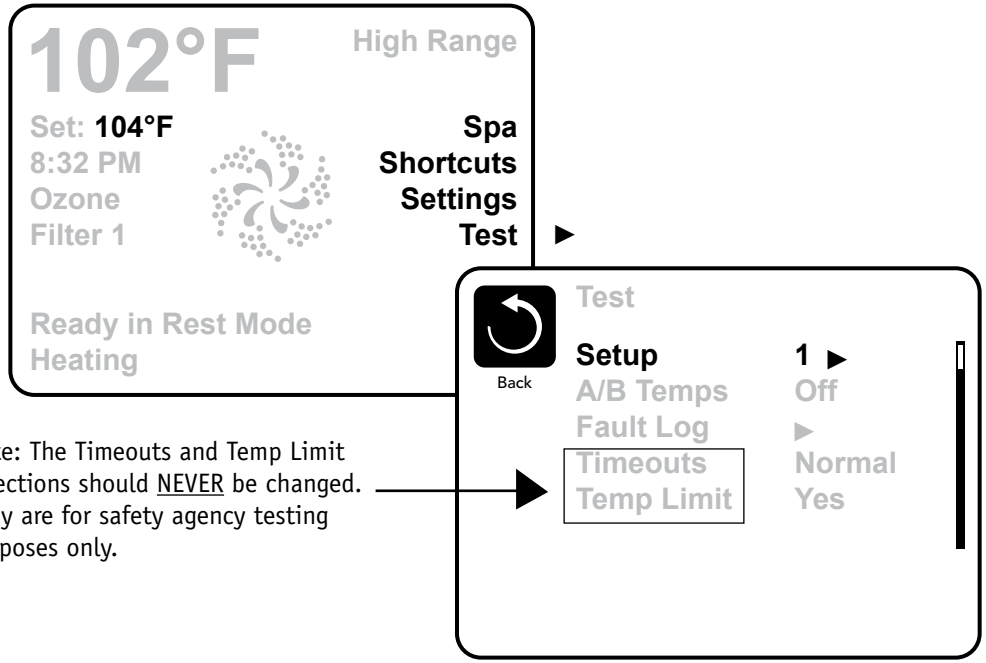
DANGER! HIGH VOLTAGE WILL BE ACCESSIBLE! SERVICE TECHNICIAN ONLY!

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.

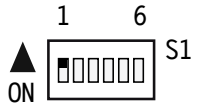
Changing Software Setups with TP600 / TP400

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.

As soon as Switch #1 is placed in the ON position, the temperature will show "T" after it instead of F or C, indicating the System is in Test Mode

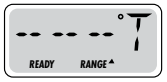


Software Setups

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.

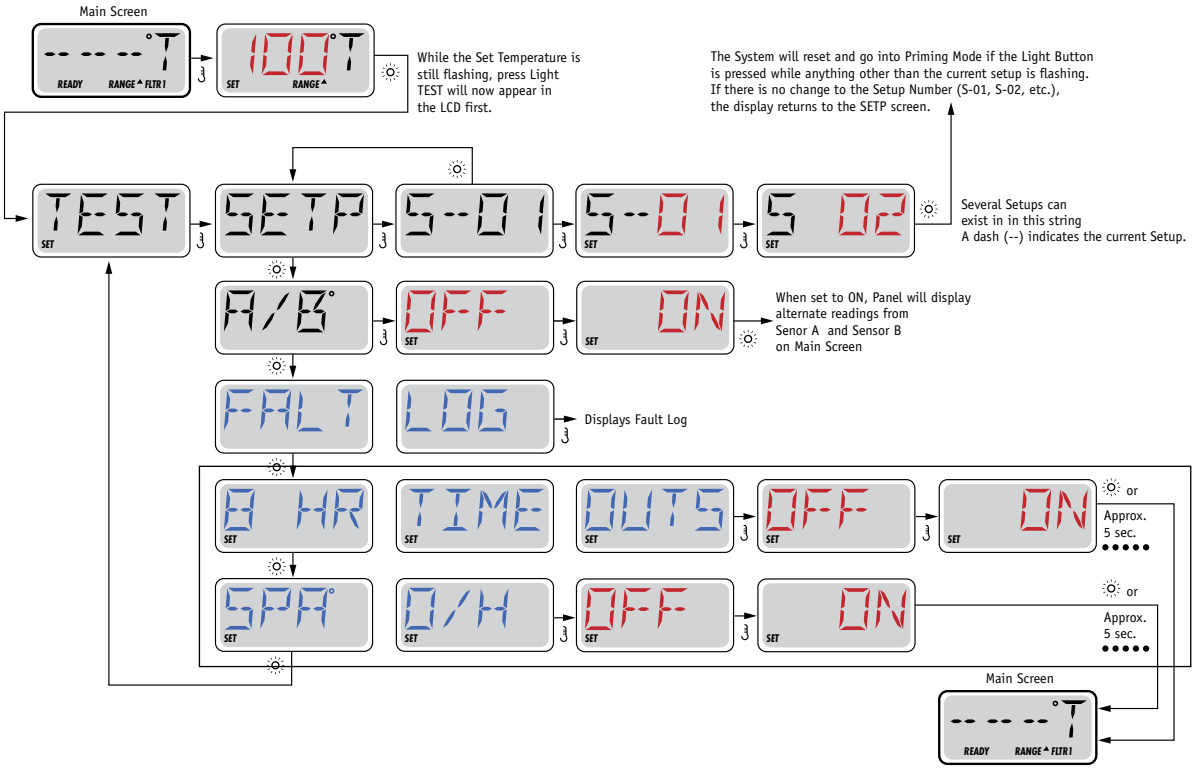
Immediately after exiting Priming Mode, press this sequence of buttons: Warm*, Light, Warm, Warm, Warm, Warm. Continue to press Warm until the diplay shows the Setup Number (S-01, S-02, etc.) you want to switch to. When the correct setup number is showing, press Light once, and the system will reset,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

THIS SYSTEM IS CONFIGURED AS SETUP #



Key

- Indicates Flashing or Changing Segment
- Indicates Alternating or Progressive Message - every 1/2 second
- A temperature button, used for "Action"
- Light or dedicated "Choose" button, depending on control panel configuration
- ••••• Waiting time - varies depending on function

Note: The Timeouts and Spa O/H selections should NEVER be changed. They are for safety agency testing purposes only.

*If the Control Panel does not have a Warm (Up) button, but rather a single Temp button, use the Temp button in place of the Warm button in the instruction above. (The flow chart assumes a single Temperature Button.)

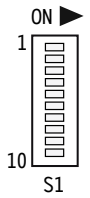
Equipment Expansion

Expansion Features

Control Connection	Default	Fuse
Relay 1 (J101)	Undefined	None
Relay 7/8 (J107)	See Below	30A
	2-Speed Pump 3 in Setups 1, 7 1-Speed Pump 3 (only) in Setups 2, 6, 8, 13, 14 1-Speed Pump 3 And 1-Speed Blower (With Splitter & In-Line Fuse) in Setups 15, 16 1-Speed Pump 2 And 1-Speed Pump 3 in Setups 5, 11, 12 2-Speed Pump 2 in Setups 3, 9 1-Speed Pump 2 in Setups 17, 18 Unused in Setups 4, 10	
Relay 9/10 (J108)	Undefined	None

DIP Switch Functions

Fixed-fuction 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.

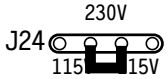
Note: *A2/A3/A4 all off = No heat with any high-speed pump or blower.*

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:*** *This feature must be enabled in software as well.*	J109 
J91	Real Time Clock Enable/Disable ***Note:*** *This Jumper should NOT be shorted when the Control Panel can display time of day.*	J91 
J30	Do Not Use	
J31	Non Applicable on UL models *(Used on CE models only)*	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:*** *Factory Configured do not change.*	J27  J25   J26
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.	

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.

Replacement Parts

PCBA:

Main PCBA:	59157
Expander PCBA:	59097

HEATER(s):

Plug + Click Heater Kit:	58306 5.5kW 800Inc
	58307 5.5kW 825Inc
	58308 5.5kW Titanium
	58303 4.0kW 800Inc
Temp Sensor Kit:	53605

CABLES: N/A

FUSES:

Part Number	Amperage	Location
30136	30A	F6, F8, F1 (Expander)
26307	2A SLO	F4
26905	0.5A SLO	F3
30122	10A	F2, F7
26976	3.15A SLO	F5

BP2000 Configuration Options

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*
Cleanup 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.

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)*

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)*

BP2000 Configuration Options

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)*

BP2000 Configuration Options

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

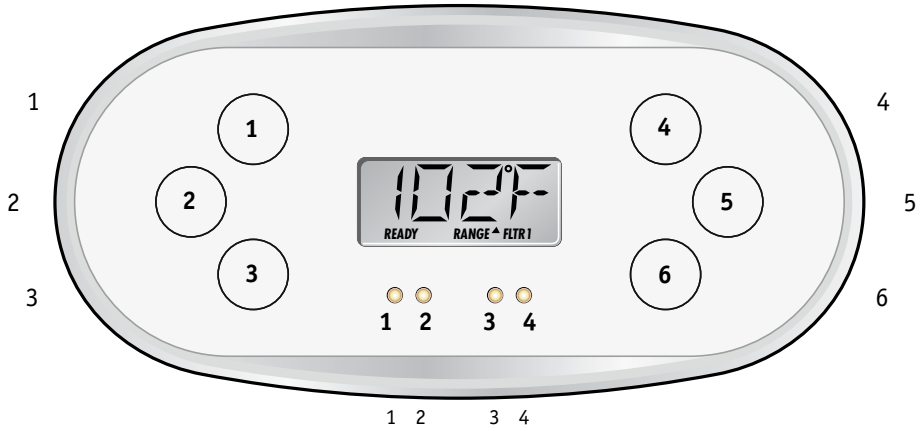
TP600 Panel Configuration

Button Layout Table

Button #	Pump 3 or Pump 3 + Blower* Setups 1, 2, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16	No Pump 3, Blower Setup 3, 9, 17, 18	No Pump 3, No Blower Setup 4, 10
1	Jets 1	Jets 1	Jets 1
2	Jets 2	Jets 2	Jets 2
3	Jets 3	Blower	Unused
4	Up	Up	Up
5	Light 1	Light 1	Light 1
6	Down	Down	Down
LED 1	Jets 1	Jets 1	Jets 1
LED 2	Jets 2	Jets 2	Jets 2
LED 3	Light 1	Light 1	Light 1
LED 4	Heat On	Heat On	Heat On

** When using setups in column 1, which operate both a Pump 3 AND a Blower, Pump 3 is on the main panel (Button3) and Blower must be operated with an Auxilliary Panel - AX10A3 on Bank 1 (J5).*

See Page 21.



TP600

55676-XX - No Overlay

50335-XX - Includes Overlay PN 12762

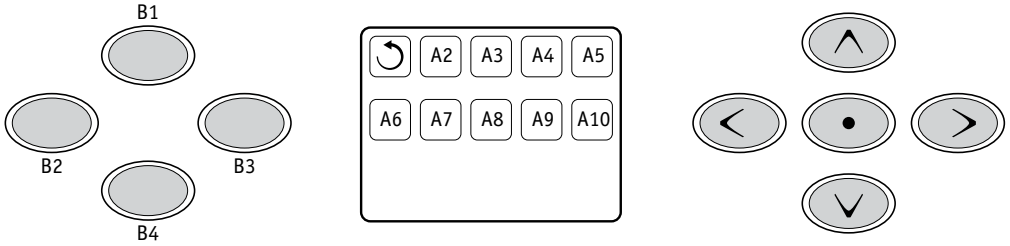
TP800 Panel Configuration

Button Layout Table

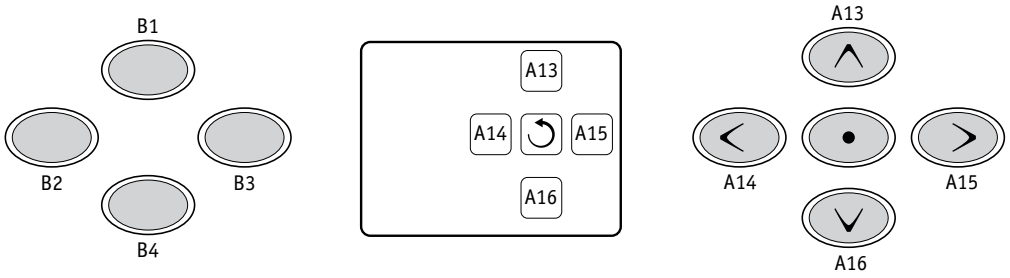
Feature #	Pump 3, Blower & Circ Setups 11, 12, 16	NO Pump 3, Blower & Circ Setup 9, 17	Pump 3, NO Blower & Circ Setups 7, 8, 13, 14	NO Pump 3, NO Blower & Circ Setup 10	Pump 3, Blower & NO Circ Setups 5, 15	NO Pump 3, Blower & NO Circ Setup 3, 18	Pump 3, NO Bl & NO Circ Setups 1, 2, 6	NO Pump 3, NO Bl & NO Circ Setup 4
A1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A2	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1
A3	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2
A4	Jets 3	Blower	Jets 3	Light 1	Jets 3	Blower	Jets 3	Light 1
A5	Blower	Light 1	Light 1	Invert	Blower	Light 1	Light 1	Invert
A6	Light 1	Invert	Invert	(Circ Icon)	Light 1	Invert	Invert	Undefined
A7	Invert	(Circ Icon)	(Circ Icon)	Undefined	Invert	Undefined	Undefined	Undefined
A8	(Circ Icon)	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A9	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A10	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A13	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1
A14	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2
A15	Blower	Blower	Jets 3	Light	Blower	Blower	Jets 3	Light
A16	Light	Light	Light	Invert	Light	Light	Light	Invert
B1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1
B2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2
B3	Jets 3	Blower	Jets 3	Undefined	Jets 3	Blower	Jets 3	Undefined
B4	Light 1	Light 1	Light 1	Light 1	Light 1	Light 1	Light 1	Light 1

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

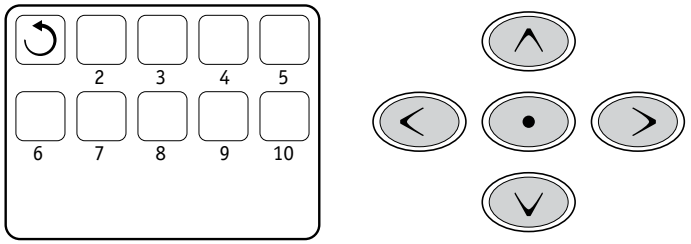
Button #	Pump 3, Blower & Circ Setups 11, 12, 16	NO Pump 3, Blower & Circ Setup 9, 17	Pump 3, NO Blower & Circ Setups 7, 8, 13, 14	NO Pump 3, NO Blower & Circ Setup 10	Pump 3, Blower & NO Circ Setups 5, 15	NO Pump 3, Blower & NO Circ Setup 3, 18	Pump 3, NO Bl & NO Circ Setups 1, 2, 6	NO Pump 3, NO Bl & NO Circ Setup 4
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1
3	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2
4	Jets 3	Blower	Jets 3	Light 1	Jets 3	Blower	Jets 3	Light 1
5	Blower	Light 1	Light 1	Invert	Blower	Light 1	Light 1	Invert
6	Light 1	Invert	Invert	(Circ Icon)	Light 1	Invert	Invert	Undefined
7	Invert	(Circ Icon)	(Circ Icon)	Undefined	Invert	Undefined	Undefined	Undefined
8	(Circ Icon)	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
9	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
10	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1
14	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2	Jets 2
15	Jets 3	Blower	Jets 3	Light	Jets 3	Blower	Jets 3	Light
16	Light	Light	Light	Invert	Light	Light	Light	Invert

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

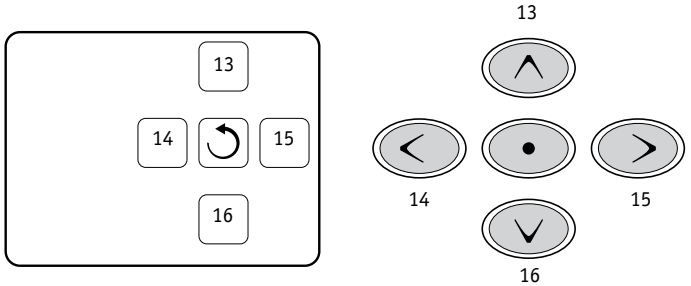
TP900 Panel Configuration

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

Spa Screen



Shortcuts Screen



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	Light

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

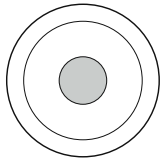
*Bank 1 consists of J5 on the Main Circuit Board.
Bank 2 consists of J8 on the Main Circuit Board.
Aux Connection Splitter PN 25257 may be required.

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.

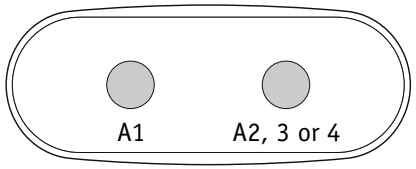
AX10 Panels on Bank 2*

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

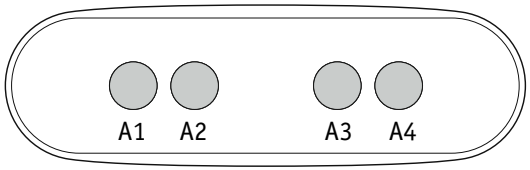
AX20 A1A2	No O/L	52800
AX20 A1A3	No O/L	52801
AX20 A1A4	No O/L	52802



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

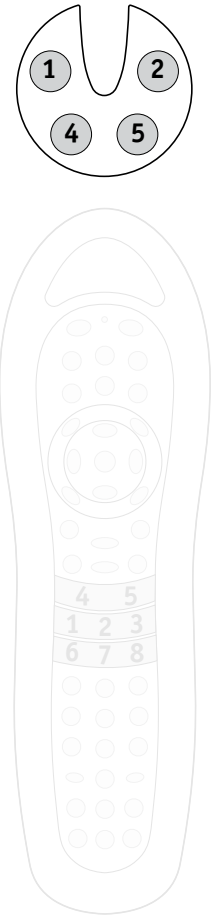


AX40 Auxiliary Panel plugged into Bank 1 will operate A1 + A2, A3 and A4.
AX40 Auxiliary Panel plugged into Bank 2 will operate A5 + A6, A7 and A8.

BP2000 Configuration Options

Remote Panel Features

Feature	Default
Remote Button A1	Jets 1
Remote Button A2	Jets 2
Remote Button A3	Jets 3
Remote Button A4	Blower
Remote Button A5	Light
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 _____