### **BP200UX Tech Sheet**

	Customer:	Balboa	Water Group					
	Part Number:	59340-01 59371 59342-01 59310	3.0kW 800 Incoloy 3.0kW 825 Incoloy 2.0kW 800 Incoloy Remote Heater System Heater is sold separately					
	Custom Box Overlay							
	Box Overlay Part Number	N/A						
	CE System Model For 2.0K	W: BP2-BI	2200UX-RCA-2.0KW					
	CE System Model For 3.0K	W: BP2-BI	BP2-BP200UX-RCA-3.0KW					
	CE System Model For Remo	ote: BP2-BI	BP2-BP200UX-RCA					
	Software Version ID:	M100_	235 V52.0					
	Software Version:	52.0						
	File Name:	BP200_	_52.0_BP200UX.hex					
Configuration Signature:		AE7D7	AE7D76E4					
	Eng. Project Number:	5270						
	Control Panels (See later p	bages for mo	re information):					
	spaTouch™2	Any versior	n (version 2.0 or later required for bba™2 fully integrated functionality)					
	Icon spaTouch™	-	n (version 3.36 or later required for bba™2 fully integrated functionality)					
	Menued spaTouch™	Any versior	n (version 2.8 or later required for bba™2 integrated functionality)					
	TDOOO							

TP800Version 3.1 and later (Version 3.13 or later required for bba™; version 4.11 or later required for bba™2 integrated functionality)TP600Version 2.7 and later (Version 2.12 or later required for bba™2 On/Off control via menu)TP500Any versionTP400T CEVersion 2.7 and later (TP400T US should not be used) (Version 2.12 or later required for bba™/bba™2 On/Off control via menu)

TP400W CE Version 2.7 and later (TP400W US should <u>not</u> be used) (Version 2.12 or later required for bba<sup>™</sup>/bba<sup>™</sup>2 On/Off control via menu)



## **System Revision History**

Part #	EPN	Date	Originator	Changes Made				
		BWG	eric BP200UX system, which is a combination of the BP200G1, BP200G2, and BP200G3 systems into one model with an ional user-insstalled expander board (the expander board mounting hardware is pre-installed).					
59340-01 59342-01	5270	09-05-19	BWG	Update software for full TP500 compatibility.				
59310	5270	09-05-19	BWG	Added PN for version with remote heater support. Remote heater is sold separately.				
	"	10-10-19	BWG	Add line 3 info to 2/3x16A conversion instructions box.				
59371 " 10-17-19 BWG Added new 825 Incoloy system P		BWG	Added new 825 Incoloy system PN.					

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

 $bba^{m}$  is integrated into graphic display panels (TP800, TP900 and spaTouch<sup>m</sup>). With TP600/TP500/TP400, use the "BT" entry on the menu to toggle  $bba^{m}$  power On/Off.  $bba^{m}2$  is integrated into graphic display panels (TP800, TP900 and spaTouch<sup>m</sup>). With TP600/TP500/TP400, use the "BT" entry on the menu to toggle  $bba^{m}2$  power On/Off.



## **Basic Functions Setup 1 - 7**

#### **Power Requirements:**

Single Service [3 wires (line, neutral, ground)]
230VAC, 50/60Hz\*, 1b, 16A, (Circuit Breaker rating = 20A max.)

**Single Service** [3 wires (line, neutral, ground)] 230VAC, 50/60Hz\*, 1þ, 32A, (Circuit Breaker rating = 40A max.)

**2-out-of-3-Service** [4 wires (line 1, line 2, <u>no</u> line 3, neutral, ground)] 230VAC line-to-neutral\*\*, 50/60Hz\*, 2/3b, 16A, (Circuit Breaker rating = 20A max each phase line.)

NOTE: 2-out-of-Service is simply 3-Service (single common) with one of the three lines unused. The third line could be used for a slave heater if desired, or left for a use not related to the spa at all.

\*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.

\*\* 3-phase service measured line-to-line will read about 400V, but BP systems do not use it line-to-line.

**IMPORTANT -** Service must include a neutral wire, with a line to neutral voltage of 230VAC.

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.

### BALBOA water group

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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.

#### 2-out-of-3-Service wiring options with Pump 2:

Pump 2 can either be wired to the Heater service or to the Pump 1 service.

If Pump 2 is wired to the Heater service, DIP Switch A8 ON (with other DIP swtiches OFF) makes Pump 2 shut OFF the heater, but lets Pump 1 run along with the Heater.

If Pump 2 is wired to the Pump 1 service, then the heater can always run (with DIP switches A2 and A3 both ON). However, in most cases DIP Switch A5 also has to be ON, which only allows either Pump 1 or Pump 2 (not both) to be at high speed at the same time The only case where DIP Switch A5 can be turned OFF is if both pumps are small enough to fit in a single 16A service together with both pumps at high speed, together with any other equipment such as A/V.

When DIP switch A5 is ON, having one pump at high speed prevents you from turning the other pump to high speed. You have to turn the first pump to either low speed or OFF before you can turn the other pump to high speed.

#### 2-out-of-3-Service wiring options with Blower:

The Blower can either be wired to the Heater service or to the Pump 1 service.

If the Blower is wired to the Heater service, DIP Switch A8 ON (with other DIP swtiches OFF) makes the Blower shut OFF the heater, but lets Pump 1 run along with the Heater.

If the Blower is wired to the Pump 1 service, then the heater can always run (with DIP switches A2 and A3 both ON). However, in most cases DIP Swtich A5 also has to be ON, which only allows either Pump 1 High or the Blower (not both) to run at a given time To determine whether DIP switch A5 can be turned OFF, add up the amperages of PUmp 1 High, the Blower, the Circ Pump (if any), the Ozone, and A/V (if any). If the sum of all this equipment is below 16A, DIP switch A5 can be trurned OFF.

When DIP swtich A5 is ON, the Blower is automatically turned OFF when Pump 1 goes to high speed. (If Pump 1 then goes to low speed or turns OFF, the Blower may turn back ON automatically.)

#### <u>2-out-of-3-Service wiring options without ether Pump 2 or Blower:</u>

When not using either Pump 2 or Blower, ie in Setups 5 - 7, the heater can run at any time with either of the above DIP swtich settings.



### **Basic Functions Setup 1 - 7**

System	Ouputs:		
Pump 1	230VAC	2-Speed	12A max
		This is the	hostor num

This is the heater pump in Setups 2, 4 & 6. Must deliver 20 GPM through heater 1-Speed in Setups 1, 3 & 5 Unused in Setup 7 15-minute timer Pump 2 230VAC 1-Speed 12A max  $\times$ Used in Setups 1 & 2 only Blower 230VAC 1-Speed 4A max 15-minute timer  $\mathbf{X}$ Used in Setups 3 & 4 only Circ Pump 230VAC 1-Speed 2A max Programmable Filtration Cycles + Polling This is the heater pump in Setups 1, 3, 5 & 7. Must deliver 20 GPM through heater 0zone 230VAC .5A max Slaved to Circ Pump in Circ Setups and to Pump 1 Low in Non-Circ Setups Spa Light 10VAC 0n/0ff 1A max 240-minute timer. A/V (Stereo) 230VAC Hot 2A max Always on Heater 3.0kW @ 240VAC max

15-minute timer

30-minute timer for P1 Low in non-circ Setupa 2, 4 & 6 only

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.



In Group 3:

### Hardware Setup

Wiring Diagram for Integral Heater Version



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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### Hardware Setup

Wiring Diagram for Remote Heater Version



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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### **Setup Reference Table**

Setup #	Circ Pump	Pump 1	Pump 2	Blower	User-Installed Expander	Temp Scale
1	Programmable Filtration + Polling	1-Speed	1-Speed	None	X-P2151 (PN 59233)	°C
2	None	2-Speed	1-Speed	None	X-P2151 (PN 59233)	°C
3	Programmable Filtration + Polling	1-Speed	None	1-Speed	X-B (PN 59231)	°C
4	None	2-Speed	None	1-Speed	X-B (PN 59231)	°C
5	Programmable Filtration + Polling	1-Speed	None	None	None	°C
6	None	2-Speed	None	None	None	°C
7	Programmable Filtration + Polling	None	None	None	None	°C

### Expander board mounting hardware is pre-installed on this model.

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

As shown on additional wiring diagram sections:

■ J3 F5 10A 250V W12 ■ EXPANDER X-B	CONNECT TO CONNECT T CONNECT T CONNECT	TO AREA 3 CT TO J5	B PN 592	31				
	LOCATION	DEVICE	VOLTS	AMPS	FROM	TO	FROM	TO
J6 KI	J6	BLOWER	230V	4A	W12	AREA 3	J3	J55

USE COPPER CONDUCTORS ONLY.	FOR SUPPLY CONNECTIONS,	TOTAL OUTPUT AMP DRAW NOT TO
EMPLOYER UNIQUEMENT	USE CONDUCTORS SIZED ON THE	EXCEED MAX INPUT RATING OF SPA
DES CONDUCTEURS DE CUIVRE.	BASIS OF 60°C AMPACITY BUT	USE EARTH GROUND CONNECTIONS
#6 AWG MIN. WIRE= 90°	RATED MINIMUM OF 90°C.	AS INDICATED INSIDE SYSTEM ENCLOSURE



### **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

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.



### **Changing Software Setups with TP800 / TP900 / spaTouch™ Menued 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.

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# **Changing Software Setups with TP600 / TP500 / 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.

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.



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

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# Changing Software Setups with TP600 / TP500 / TP400 Continued

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

NOTE: WHerever the below says Warm or Temp folowed by Light, on the TP500 press Menu instead of Warm or Temp followed by light. And whenever the chart below says Light, on the TP500 press Menu insead of Light.

Immediately after exiting Priming Mode, press this sequence of buttons: Warm\*, Light, 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.



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.



THIS SYSTEM IS

CONFIGURED AS SETUP #

## **Equipment Expansion**

### Expansion Features Control Connection

Relay 1 (J5) in Setups 5 - 7 Relay 1 (J5) in Setups 1 & 2 Relay 1 (J5) in Setups 3 & 4

Default	Fuse
None (As Manufactured)	
1-Speed Pump 2	15A
1-Speed Blower	10A

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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### **DIP Switch Functions**

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

A1

A2

Α3

Α5

DIP Switches	
Test Mode (normally Off).	
In "ON" position, add one high-speed pump (or blower) with Heater.	
In "ON" position, add two high-speed pumps (or 1 HS Pump and Blower) with Heater.	
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.	S1

Persistent memory reset (Used when the spa is powering up to restore factory settings as determined by software configuration). A6

A2 and A3 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 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 all off = No heat with any high-speed pump or blower.

#### **Assignable DIP Switches**

A4	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).
A7	In "ON" position, Simplified Menus on TP400/TP500/TP600. <u>Do not</u> use graphic panels (TP800, TP900, or spaTouch™ family) with Simplified Menus. In "OFF" position, Regular Menus on TP400/TP500/TP600. This setting is compatible with all panels.
A8	In "ON" position, 3-Phase Special Amperage Rule is enabled. In "OFF" position, 3-Phase Special Amperage Rule is disabled.

Undesignated switches are not assigned a function.



### **Jumper Definitions**

J109	Non Applicable on CE models			J109 🖸
J30	Do Not Use			
J31	Jumper on 1 pin with 2.0kW or smaller heater Jumper on 2 pins with a 3.0kW or higher heater	Jumper setting varies by system model	J31	for 2kW models
		which is shown to the right of the jumper.	J31	for 3kW models

J44 Jumper must be on center two pins (240V) for CE Systems.



### 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.



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### **Replacement Parts**

PCBA:		
Main PCBA:		59341-01 3.0kW Models
		59343-01 2.0kW Models + Remote Model
Expander PCBA:		59233 (X-P2151) for Pump2; 59231 (X-B) for Blower
HEATER(s):		
Heater:		58419 3.0kW 800 Inc for integral heater only
		58450 3.0kW 825 Inc for integral heater only
		58427 2.0kW 800 Inc for integral heater only
Temp Sensor Kit:		30344KIT 12-inch sensor for integral heater only
		30382KIT 24-inch sensor for integral heater only
CABLES:		N/A
FUSES:		
Part Number	Amperage	Location
30136	30A	F6
26983	1A	F4, F5 on main board
24514	0.1A SL0	F3
24517	15A	F5 on X-P2151 expander when using Pump 2 in Setup 1 or 2
30122	10A	F5 on X-B expander when using Blower in Setup 3 or 4



General Features		
Feature	Default	
Pump 1 in Filter Cycle (Circ Only)	No	
Pump 1 Low Timer	30 Minutes	Applies in non-circ Setups (configurations) only
General Pump Timer	15 Minutes	
Blower Timer	15 Minutes	
Mister Timer	15 Minutes	
Light Timer	240 Minutes	
Circ (when enabled)	Programmable + Polling	3
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 lowes	st 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.



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#### **Temperature Features**

Feat	ure		Def
-		<b>.</b> .	

Default

Temperature Display

°C

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	4 <u>5</u>	5	6	7	8	9	10	11	12	13	14	15	<i>16</i>	17	18	1 <b>9</b>	20	21	22
°F 39	9 41	! 4	43	45	46	48	50	52	54	55	57	59	61	63	64	66	68	70	72
°C 23	3 24	<i>i</i> 2	25	26	27	<i>28</i>	29	30	31	<u>32</u>	<u>33</u>	34	35	36	37	38	<u>39</u>	40	
°F 73	3 75	5 7	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	e Defa	ult <sup>-</sup>	Temp	o*				100°	F										
Lo-Range	e Min	. Set	: Terr	пр				50°F											
Lo-Range	e Max	. Set	t Ten	np				99°F											
Lo-Range	e Defa	ult .	Temp	р*				70°F											
Freeze Threshold 44°F in Setups 1 & 2																			
Freeze Ty	ype							Rotat	ing -	Pump	s at L	owest	Spee	d					
Temp Loo	ck Typ	be						Temp	+ Set	tinas									

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



e 1.

### **Time Features**

Feature	Default
Time Format*	24 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.



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### **Reminder Features**

Feature	Default
Reminders Shown*	Yes
Check pH	OFF
Check Sanitizer	OFF
Clean Filter	30 Days
Test GFCI	OFF
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	1 Pump at High Speed maximum, Blower turns OFF when 1 Pump is at High Speed
3-Phase Special Amperage Rule	Pumps or Blower in Group 3 (eg, Pump 2) are the only ones which turn the Heater Off Pumps not in Group 3 (ie, Pump 1) do not turn the Heater OFF
Drain Mode	Disabled
Demo Mode	Disabled
GFCI Trip	Not Applicable for CE Models
Automatic GFCI Test	Disabled
Ozone Slaved to Heater Pump	Yes
Dual Voltage Heater	Always Input Voltage
Safety Suction	Disabled
Menu Style	Standard Menus when DIP switch A7 is OFF. Simplified Menus when DIP switch A7 is ON



## **TP900 Panel Configuration**

#### **Button Layout Table**

Button #	Setup 1	Setup 2	Setup 3	Setup 4	Setup 5	Setup 6	Setup 7	Spa Screen
1	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	Light	
3	Jets 2	Jets 2	Blower	Blower	Light	Light	Invert	
4	Light	Light	Light	Light	Invert	Invert	(Circ Icon)	
5	Invert	Invert	Invert	Invert	(Circ Icon)	Undefined	Undefined	
6	(Circ Icon)	Undefined	(Circ Icon)	Undefined	Undefined	Undefined	Undefined	
7	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	
8	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	
9	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	
10	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined	
11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Shortcuts Screen
12	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	Undefined	
14	Jets 2	Jets 2	Blower	Blower	Undefined	Undefined	Undefined	
15	Light	Light	Light	Light	Light	Light	Undefined	
16	Invert	Invert	Invert	Invert	Invert	Invert	Undefined	

A Circ Icon will appear when a Circ Pump is configured

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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## **TP800 Panel Configuration**

#### **Button Layout Table**

Feature #	Setup 1	Setup 2	Setup 3	Setup 4	Setup 5	Setup 6
A1	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
A3	Jets 2	Jets 2	Blower	Blower	Light 1	Light 1
A4	Light 1	Light 1	Light 1	Light 1	Invert	Invert
A5	Invert	Invert	Invert	Invert	(Circ Icon)	Undefined
A6	(Circ Icon)	Undefined	(Circ Icon)	Undefined	Undefined	Undefined
A7	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A8	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A9	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A10	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A11	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
A13	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A14	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A15	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
A16	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
B1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1	Jets 1
B2	Jets 2	Jets 2	Blower	Blower	Undefined	Undefined
B3	Undefined	Undefined	Undefined	Undefined	Undefined	Undefined
B4	Light 1	Light 1	Light 1	Light 1	Light 1	Light 1

TP800 is not supported in Setup 7.



### **TP800 Panel Configuration**

### **Shortcuts Screen**



*Note:* Buttons 11 and 12 are not used in this configuration.

Button 1 is fixed.





### **TP600 Panel Configuration**

### **Button Layout Table**

Button #	Setups 1 & 2	Setups 3 & 4	Setups 5 & 6
1	Jets 1	Jets 1	Jets 1
2	Jets 2	Blower	Undefined
3	Invert	Invert	Invert
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	Blower	Undefined
LED 3	Light 1	Light 1	Light 1
LED 4	Heat On	Heat On	Heat On



**TP600** 55676-XX

No Overlay

TP600 is not supported in Setup 7.



## **TP400 Panel Configuration**

#### **Button Layout Table for TP400T**

Button #	Setups 1 & 2	Setups 3 & 4	Setups 5 & 6	Setup 7
1	Temperature	Temperature	Temperature	Up
2	Jets 1	Jets 1	Jets 1	Down
3	Light 1	Light 1	Light 1	Light 1
4	Jets 2	Blower	Undefined	Undefined
LED 1	Heater ON	Heater ON	Heater ON	Heater ON
LED 2	Jets 1 ON	Jets 1 ON	Jets 1 ON	Undefined
LED 3	Light ON	Light ON	Light ON	Light ON
LED 4	Jets 2	Blower	Undefined	Undefined



#### **TP400T CE**

50260-XX Includes overlay PN 12511.

#### **Button Layout Table for TP400W**

Button Eugout Tuble To					
Button #	All Setups				
1	Up				
2	Down				
3	Light 1				
4	Jets 1				
LED 1	Heater ON				
LED 2	Undefined				
LED 3	Light ON				
LED 4	Jets 1 ON				

#### TP400W is supported in Setups 5 % 6 only.

TP400W CE

50259-XX Includes overlay PN 12510.

