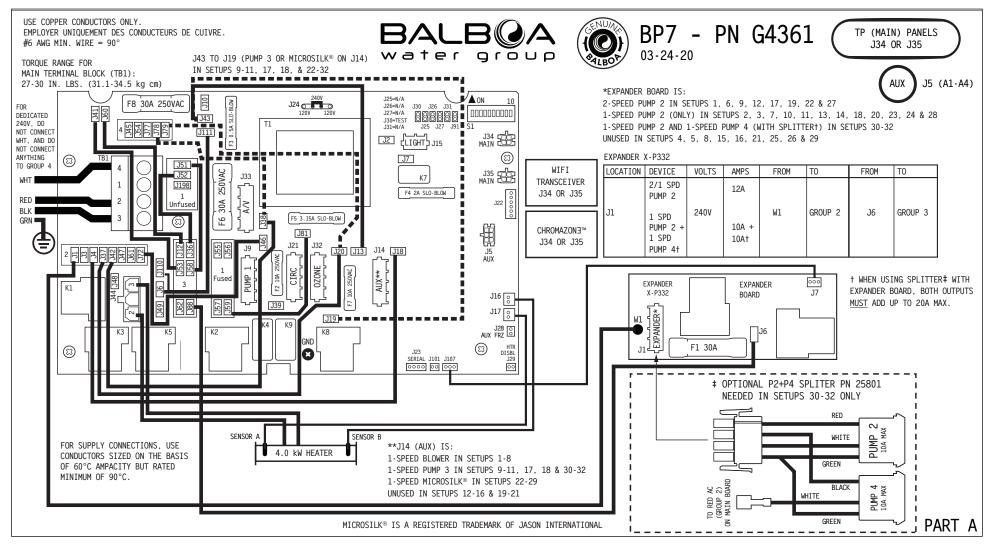
## Hardware Setup

#### Wiring Diagram





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.

## **Hardware Setup**

#### **Settings**

SETUP #	CIRC PUMP	PUMP 1	PUMP 2	PUMP 3	PUMP 4	BLOWER	MICROSILK®	TEMP SCALE	
		0.00550	0.00550	NONE	NONE	1 00550	NONE	0.5	1
1	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	NONE	NONE	1-SPEED	NONE	°F	
2	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	NONE	NONE	1-SPEED	NONE	°F	
3	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	NONE	NONE	1-SPEED	NONE	°F	
4	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	NONE	NONE	NONE	1-SPEED	NONE	°F	
5	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	NONE	NONE	NONE	1-SPEED	NONE	°F	
6	NONE	2-SPEED	2-SPEED	NONE	NONE	1-SPEED	NONE	°F	
7	NONE	2-SPEED	1-SPEED	NONE	NONE	1-SPEED	NONE	°F	
8	NONE	2-SPEED	NONE	NONE	NONE	1-SPEED	NONE	°F	
9	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	1-SPEED	NONE	NONE	NONE	°F	
10	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	1-SPEED	NONE	NONE	NONE	°F	
11	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	1-SPEED	NONE	NONE	NONE	°F	
12	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	NONE	NONE	NONE	NONE	°F	
13	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	NONE	NONE	NONE	NONE	°F	
14	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	NONE	NONE	NONE	NONE	°F	
15	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	NONE	NONE	NONE	NONE	NONE	°F	
16	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	NONE	NONE	NONE	NONE	NONE	°F	
17	NONE	2-SPEED	2-SPEED	1-SPEED	NONE	NONE	NONE	°F	
18	NONE	2-SPEED	1-SPEED	1-SPEED	NONE	NONE	NONE	°F	
19	NONE	2-SPEED	2-SPEED	NONE	NONE	NONE	NONE	°F	
20	NONE	2-SPEED	1-SPEED	NONE	NONE	NONE	NONE	°F	
21	NONE	2-SPEED	NONE	NONE	NONE	NONE	NONE	°F	····· INSTEAD OF
22	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	NONE	NONE	NONE	1-SPEED	°F	SETUP #21.
23	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	NONE	NONE	NONE	1-SPEED	°F	THIS SYSTEM IS
24	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	NONE	NONE	NONE	1-SPEED	°F	CONFIGURED IN
25	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	NONE	NONE	NONE	NONE	1-SPEED	°F	SETUP #:
26	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	NONE	NONE	NONE	NONE	1-SPEED	°F	
27	NONE	2-SPEED	2-SPEED	NONE	NONE	NONE	1-SPEED	°F	
28	NONE	2-SPEED	1-SPEED	NONE	NONE	NONE	1-SPEED	°F	
29	NONE	2-SPEED	NONE	NONE	NONE	NONE	1-SPEED	°F	
30‡	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	1-SPEED	1-SPEED	NONE	NONE	°F	
31‡	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	1-SPEED	1-SPEED	NONE	NONE	°F	
32‡	NONE	2-SPEED	1-SPEED	1-SPEED	1-SPEED	NONE	NONE	°F	
									1

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	<b>A</b> 8	NOT ASSIGNED			
NOT ASSIGNED	🗲 A9	NOT ASSIGNED			
NOT ASSIGNED	<b>A</b> 10	NOT ASSIGNED			

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

LOCATION	DEVICE	VOLTS	MAX AMPS	FROM	TO
J9	2-SP PUMP 1	240V	12A MAX	J46	GROUP 2
J14	1-SP BLOWER /	240V	4A MAX /	J18	GROUP 2
	1-SP PUMP 3 /		12A MAX /		
	1-SP				
	MICROSILK®		8A MAX		
	J14 LINE 1 CO	NNECTION	J43	J13	
	J14 LINE 1 CO	NNECTION	FOR P3/MS	J43	J19
J15	SPA LIGHT	10V	2A*		
J21	CIRC PUMP	240V**	2A MAX	J20	GROUP 2
J32	OZONE		0.5A		
	CIRC AND OZONE LINE 1 CONNECTION			J81	J59
J33	TV / AV	240V***	2A	J38	GROUP 2
J44	HEATER	240V	4.0 kW		

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

\*\* CIRC PUMP + OZONE CAN BE 120V IF J20 IS CONNECTED TO GROUP 4

\*\*\* AV CAN BE 120V IF J38 IS CONNECTED TO GROUP 4, BUT IN THAT CASE IT MAY REQUIRE MORE THAN 2A. IN WHICH CASE PUMP AMPERAGES MAY NEED TO BE SCALED BACK, ESPECIALLY IN THE 4-PUMP SETUPS 30-32

#### PART B

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.

03-24-20



**‡SETUPS 30-32 REQUIRE SPLITTER PN 25801** 

water group

BP7 - PN G4361

CONNECT ONLY TO CIRCUITS PROTECTED BY A CLASS A GFCI.

THE EQUIPMENT AND AT LEAST 5 FEET (1.52 M) FROM THE

INSIDE WALLS OF THE POOL, SPA, OR HOT TUB.

A DISCONNECTING MEANS MUST BE INSTALLED WITHIN SIGHT FROM

TOTAL OUTPUT AMP DRAW NOT TO EXCEED MAX INPUT RATING OF SPA

USE EARTH GROUND CONNECTIONS AS INDICATED INSIDE THE SYSTEM ENCLOSURE

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## Setup Reference Table for Setups 1-16 (Setups 17-32 on next page)

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

Color	Output					
Кеу						
	XP332					
	XP332 and Splitter					
	J14 (Aux) on Main Board					

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 for Setups 17-32 (Setups 1-16 on previous page)

Setup #	Circ Pump	Pump 1	Pump 2	Pump 3	Pump 4	Blower	MicroSilk®	Temp Scale
17	None	2-Speed	2-Speed	1-Speed	None	None	None	°F
18	None	2-Speed	1-Speed	1-Speed	None	None	None	°F
19	None	2-Speed	2-Speed	None	None	None	None	°F
20	None	2-Speed	1-Speed	None	None	None	None	°F
21	None	2-Speed	None	None	None	None	None	°F
22	Programmable Filtration + Polling	2-Speed	2-Speed	None	None	None	1-Speed	°F
23	Programmable Filtration + Polling	2-Speed	1-Speed	None	None	None	1-Speed	°F
24	Programmable Filtration + Polling	1-Speed	1-Speed	None	None	None	1-Speed	°F
25	Programmable Filtration + Polling	2-Speed	None	None	None	None	1-Speed	°F
26	Programmable Filtration + Polling	1-Speed	None	None	None	None	1-Speed	°F
27	None	2-Speed	2-Speed	None	None	None	1-Speed	°F
28	None	2-Speed	1-Speed	None	None	None	1-Speed	°F
29	None	2-Speed	None	None	None	None	1-Speed	°F
30	Programmable Filtration + Polling	2-Speed	1-Speed	1-Speed	1-Speed	None	None	°F
31	Programmable Filtration + Polling	1-Speed	1-Speed	1-Speed	1-Speed	None	None	°F
32	None	2-Speed	1-Speed	1-Speed	1-Speed	None	None	°F

System (and any replacement board) is shipped in Setup 21

Color Key	Output
	XP332
	XP332 and Splitter
	J14 (Aux) on Main Board

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 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.



 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
Image: System is in Test Mode

# 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.

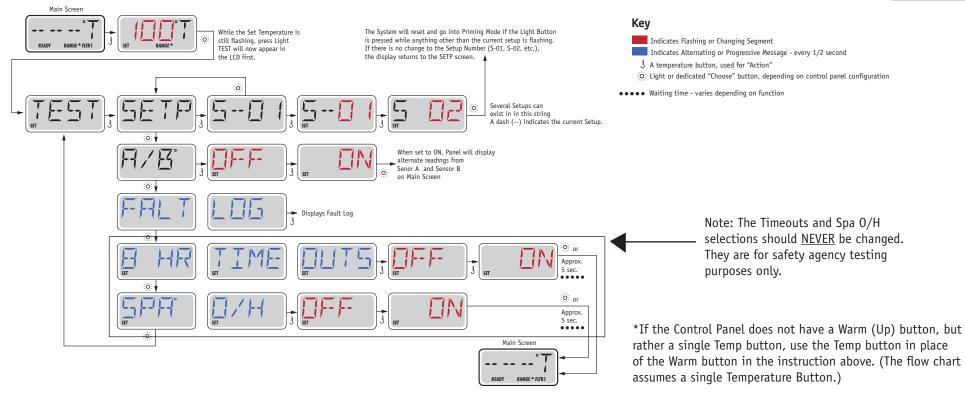
NOTE: WHerever the below says Warm or Temp folowed by Light, on the TP500 press Menu instead of Warm or Temp followed by light. And whenever the chart below says Light, on the TP500 press Menu insead of Light.

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. © Copyright 2009 Balboa Water Group.



THIS SYSTEM IS

CONFIGURED AS

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