BP26P3BC Tech Sheet

Customer: Balboa Water Group

Part Number: 55976-03 Incoloy, 55977-03 Titanium

Custom Box Overlay

Box Overlay Part Number N/A

CE System Model: BP26-BP26P3BC-RCA3.0K

Software ID: M100_215 V6

Software Version: 6.0

File Name: BP2600_6.0_BP26P3BC_4.hex

Configuration Signature: 9E808063

Eng. Project Number: 3735

Base PCBA: 56088-03 Bare Board: 22614 A

Control Panels:

TP800 50261 TP900 50262

Software Version 1.2 and later

Auxiliary Panels

See Page 20



System Revision History

Part #	EPN	Date	Originator	Changes Made
55976	3343	06-30-10	BWG	Initial Release Generic BP2600
55976-01	3458	08-17-10	BWG	Hex file change to fix panel maps
55976-01	3458	08-31-10	BWG	Fix typos
55976-02	3479	10-11-10	BWG	RMA Tester and eFAST compatibility added. Light output changed to 1A.
55976-03	3735	12-02-11	BWG	Additional iPhone app support. Add TP800 Panel functionality.

Basic Functions Setup 1

Power Requirements:

Single Service [3 wires (line, neutral, ground)]
230VAC, 50Hz, 1þ, 32A, (Circuit Breaker rating = 40A max.)
Dual Service N/A
3-Service [5 wires (line 1, line 2, line 3, neutral, ground)]
400VAC, 50Hz, 3Nþ, 16A, (Circuit Breaker rating = 20A max each phase line.)

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

System Ouputs:

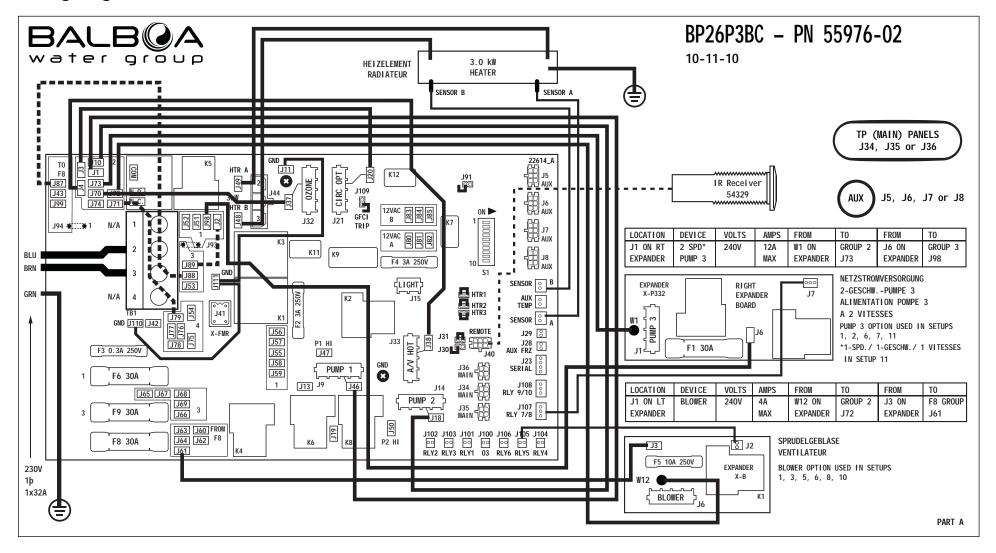
Pump 1	230VAC	2-Speed	10A max*	15-minute timer for High Speed, 15-Minute timer for Low Speed
Pump 2	230VAC	2-Speed	10A max*	15-minute timer
Pump 3	230VAC	2-Speed	10A max*	15-minute timer
Blower	230VAC	1-Speed	8A max	15-minute timer
Circ Pump	230VAC This is the h Must deliver		2A max ugh heater	Programmable Filtration Cycles + Polling
0zone	230VAC		.5A max	Separate Relay
Spa Light	10VAC	0n/0ff	1A max	240-minute timer.
A/V (Stereo)	230VAC	Hot	5A max	Always on
Heater	3.0kW @ 24	OVAC max		

^{*}Pumps using more than 10A may require special configuration. Contact Balboa Water Group for more information.



Hardware Setup

Wiring Diagram

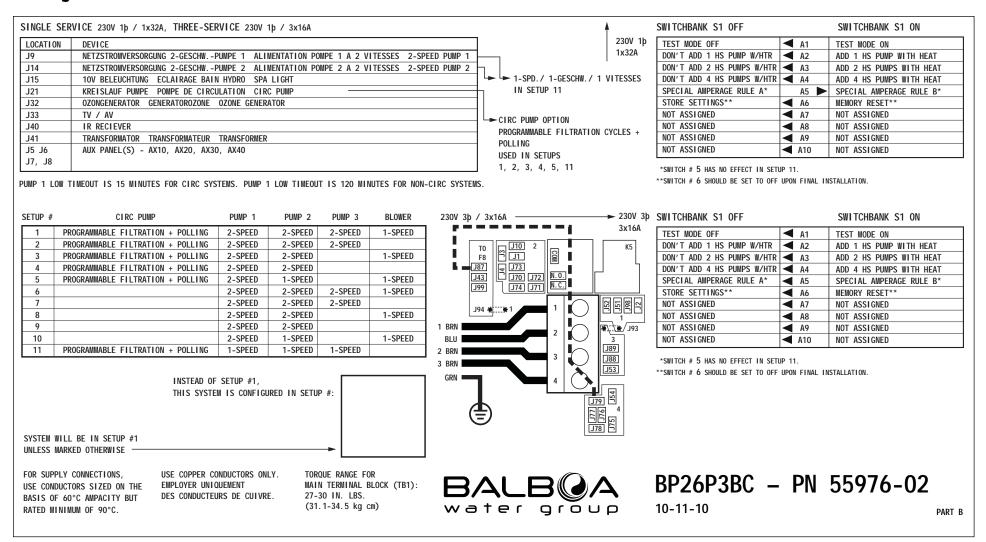


Manufactured under one or more of these patents. U.S. Patents: 5332944, 5361215, 5550753, 5559720, 5,883,459, 6253227, 6282370, 6590188, 6976052, 6965815, 7030343, 7,417,834 b2, Canadian Patent: 2342614, Australian patent: 2373248 other patents both foreign and domestic applied for and pending.



Hardware Setup

Settings



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



Setup Reference Table

Setup #	Circ Pump	Pump 1	Pump 2	Pump 3	Blower	Temp Scale
1	Programmable Filtration + Polling	2-Speed	2-Speed	2-Speed	1-Speed	°C
2	Programmable Filtration + Polling	2-Speed	2-Speed	2-Speed		°C
3	Programmable Filtration + Polling	2-Speed	2-Speed		1-Speed	°C
4	Programmable Filtration + Polling	2-Speed	2-Speed			°C
5	Programmable Filtration + Polling	2-Speed	1-Speed		1-Speed	°C
6		2-Speed	2-Speed	2-Speed	1-Speed	°C
7		2-Speed	2-Speed	2-Speed		°C
8		2-Speed	2-Speed		1-Speed	°C
9		2-Speed	2-Speed			°C
10		2-Speed	1-Speed		1-Speed	°C
11	Programmable Filtration + Polling	1-Speed	1-Speed	1-Speed		°C

Pump 1 Low timeout is 15 minutes for Circ systems.

Pump 1 Low timeout is 120 minutes for Non-Circ systems.

System is shipped in Setup 1

Changing Software Setups

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

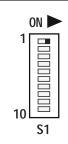
DANGER! HIGH VOLTAGE WILL BE ACCESSIBLE! SERVICE TECHNICIAN ONLY!

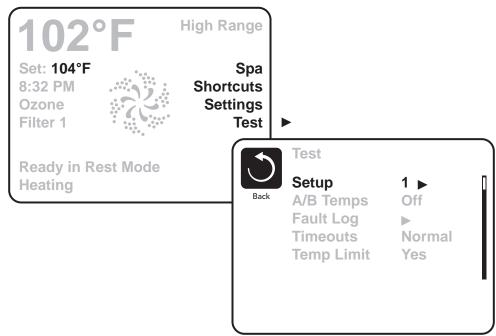
While the system is running, move DIP Switch 1 (on S1 on the Main circuit board) to ON. The system will enter Test Mode.

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.







Equipment Expansion

Expansion Features		
Control Connection	Default	Fuse
Relay 1 (J101)	Undefined	None
Relay 2 (J102)	Undefined	None
Relay 3 (J103)	Undefined	None
Relay 4 (J104)	Undefined	None
Relay 5 (J105)	Blower	10A
Relay 6 (J106)	Undefined	None
Relay 7/8 (J107)	Pump 3	30A
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.

Undesignated switches are not assigned a function.



Jumper Definitions

J93 J94	Must be s	oldered in place for UL and cUL Single service, 50A or 60A.	J94
J109	GFCI Test,	/Trip Enable This feature must be enabled in software as well.	J109
J91	Real Time	Clock Enable/Disable This Jumper should NOT be shorted when the Control Panel can display time of day.	J91 ©ଗ୍ର
J30	Do Not Us	se	
J31	•	n 1 pin with a 2.0kW or smaller heater n 2 pins with a 3.0kW or higher heater	J31
J29	Do Not Us	se	J29 💍
HTR 1, 2, 3	Heater Ty	pe Settings. Factory Configured.	

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.



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General Features

Feature	Default
Pump 1 in Filter Cycle (Circ Only)	No
Pump 1 Low Timer	15 Minutes with Circ
	120 Minutes Non-Circ
General Pump Timer	15 Minutes
Blower Timer	15 Minutes
Mister Timer	15 Minutes
Light Timer	240 Minutes

Circ (when enabled) Programmable + Polling

Cleanup Cycle 30 Minutes

Cleaup as Preference setting Yes

Ozone Always
Ozone Suppression OFF

Pump Purge60 SecondsBlower Purge30 SecondsMister Purge5 Seconds

Blue Indicates New Custom Configuration Default (Setup 1)

Template 40981_C 02-17-10





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Temperature Features

Feature

Temperature Display

Default

°C in Setups 1-10

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	<i>57</i>	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	<i>75</i>	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

Temp Lock Type Temp + Settings

Blue Indicates New Custom Configuration Default (Setup 1)

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^{*}May be changed by end-user (if enabled)

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

Blue Indicates New Custom Configuration Default (Setup 1)

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



^{*}May be changed by end-user (if enabled)

Reminder Features

Feature	Default
Reminders Shown*	Yes
Check pH	0FF
Check Sanitizer	0FF
Clean Filter	30 Days
Test GFCI	65 Days
Drain Water	100 Days
Change Cartridge	OFF
Clean Cover	0FF
Treat Wood	0FF
Change Filter	365 Days

Blue Indicates New Custom Configuration Default (Setup 1)

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



^{*}May be changed by end-user (if enabled)

Special Features Feature

Special Amperage Rule A

Default

No Limitation

Special Amperage Rule B 2 HS Pumps Max in Setups 1-10

No limitation in Setup 11

Drain Mode Disabled
Demo Mode Disabled
Automatic GFCI Test Disabled

Ozone Slaved to Heater Pump No

Dual Voltage Heater Always Input Voltage

Safety Suction Disabled

TP800 Panel Configuration

Button Layout Table

Button #	Pump 3 & Blower	Pump 3 & NO Blower	NO Pump 3 & Blower	NO Pump 3 & NO Blower
	Setup 1, 6	Setups 2, 7, 11	Setups 3, 5, 8, 10	Setups 4, 9
1	N/A	N/A	N/A	N/A
2	Jets 1	Jets 1	Jets 1	Jets 1
3	Jets 2	Jets 2	Jets 2	Jets 2
4	Jets 3	Jets 3	Blower	Light 1
5	Blower	Light 1	Light 1	Invert
6	Light 1	Invert	Invert	(Circ Icon)
7	Invert	(Circ Icon)	(Circ Icon)	Undefined
8	(Circ Icon)	Undefined	Undefined	Undefined
9	Undefined	Undefined	Undefined	Undefined
10	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	Blower	Jets 3	Blower	Undefined
16	Light 1	Light 1	Light 1	Light 1
B1	Jets 1	Jets 1	Jets 1	Jets 1
B2	Jets 2	Jets 2	Jets 2	Jets 2
В3	Blower	Jets 3	Blower	Undefined
B4	Light 1	Light 1	Light 1	Light 1

A Circ Icon will appear when a Circ Pump is configured using Setups 1, 2, 3, 4, 5, 11

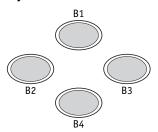
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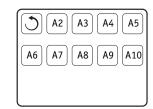
TP800 Panel Configuration

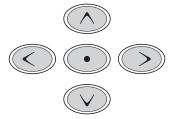
TP800

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

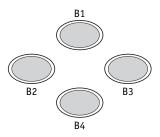
Spa Screen

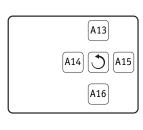


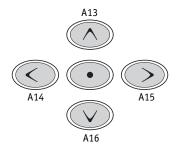




Shortcuts Screen







TP900 Panel Configuration

Button Layout Table

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

A Circ Icon will appear when a Circ Pump is configured using Setups 1, 2, 3, 4, 5, 11



Auxilliary Panel Features on Bank 1*

Feature	Default
Aux Button A1	Jets 1
Aux Button A2	Jets 2
Aux Button A3	Jets 3
Aux Button A4	Light

Auxilliary Panel Features on Bank 2*

Feature	Default
Aux Button A5	Jets 1
Aux Button A6	Jets 2
Aux Button A7	Blower
Aux Button A8	Light

BALB@A

^{*}Bank 1 consists on J5 and J6 on the Main Circuit Board.
Bank 2 consists on J7 and J8 on the Main Circuit Board.
Aux Connection Splitter PN4XXXX may be required.

Auxilliary Panel Features

AX10 Panels on Bank 1*

A1, AX10A1	No O/L	52803
A2, AX10A2	No O/L	52804
A3, AX10A3	No O/L	55805
A4. AX10A4	No O/L	52806



Call Customer Service for additional information about Auxiliary Panels.

Auxiliary Panel Part Number	
Overlay Part Number	

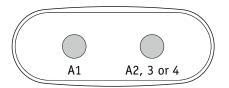
*Bank 1 consists on J5 and J6 on the Main Circuit Board.
Bank 2 consists on J7 and J8 on the Main Circuit Board.
Aux Connection Splitter PN4XXXX may be required.

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

AX20

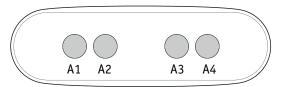
AX20 A1A2	No O/L	52800
AX20 A1A3	No O/L	52801
AX20 A1A4	No O/L	52802



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 0/L 52799

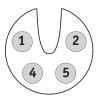


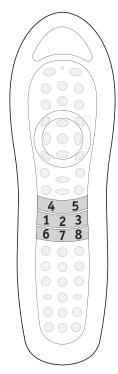
AX40 Auxiliary Panel plugged into Bank 1 will operate A1 + A2, A3 and A4. AX40 Auxiliary Panel plugged into Bank 2 will operate A5 + A6, A7 and A8.



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





Remote Panel Part Number

Overlay Part Number

