BP26P3BC Tech Sheet

Customer: **Balboa Water Group**

Part Number: 55976 Incoloy, 55977 Titanium

Custom Box Overlay   ☐

Box Overlay Part Number   N/A

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

Software Version (SSID):   M100_215 V3

File Name: BP2600_3.0_2_BP26P3BC_2.HEX

Configuration Signature: 4D1462AB

Eng. Project Number: 3343

Base PCBA: 56088

Bare Board: 22614_A

Control Panels:

TP901   55995

Software Version   1.2 and later

Auxiliary Panels

See Page 19

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System Revision History

Part #	EPN	Date	Originator	Changes Made
55976	3343	06-30-10	BWG	Initial Release Generic BP2600

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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.
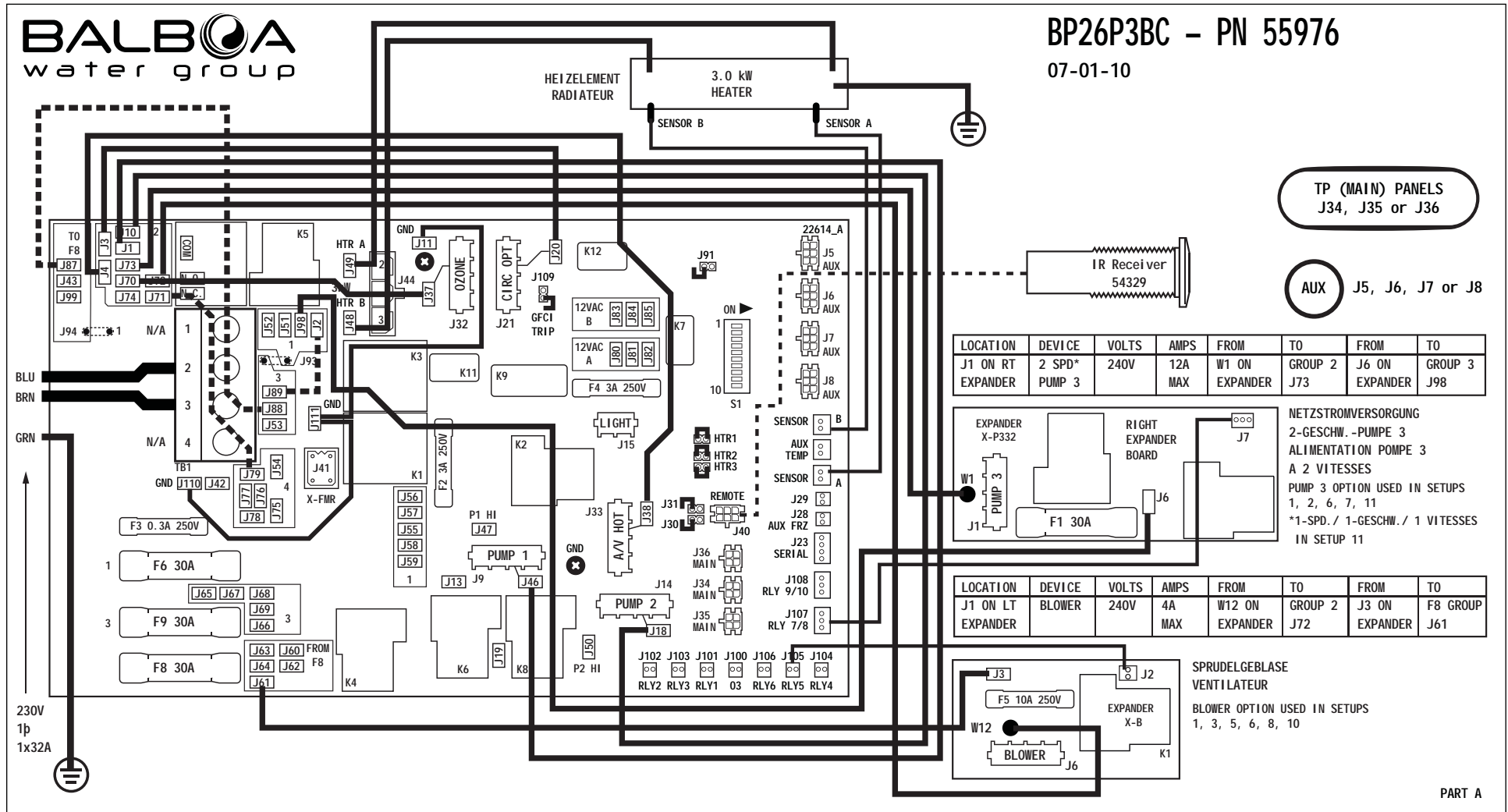
System Ouputs:

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	1-Speed	2A max	Programmable Filtration Cycles + Polling
	This is the heater pump			
	Must deliver 20 GPM through heater			
Ozone	230VAC		.5A max	Separate Relay
Spa Light	10VAC	On/Off	2A max	240-minute timer.
A/V (Stereo)	230VAC	Hot	5A max	Always on
Heater	5.5kW @ 240VAC max			

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

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Wiring Diagram

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BP26P3BC – PN 55976
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HEIZELEMENT RADIATEUR
3.0 kW HEATER
SENSOR B   SENSOR A

TP (MAIN) PANELS
J34, J35 or J36

IR Receiver
54329

AUX   J5, J6, J7 or J8

TO F8
J87
J43
J99
J94   N/A

BLU
BRN
GRN

N/A

TB1
GND J110 J42
X-FMR
F3 0.3A 250V

1 F6 30A
J65 J67 J68
J69
J66
3 F9 30A
J63 J60 FROM
J64 J62 F8
J61   K4
F8 30A

230V
1p
1x32A

HTR A
J49
HTR B
J48

GND J11
OZONE
J32
CIRC OPT
J21
J109
GFCI TRIP
J20

K12
K7
12VAC B J83 J84 J85
12VAC A J80 J81 J82
F4 3A 250V

ON
S1
1
10

LIGHT
J15
F2 3A 250V
K2
PUMP 1
J13 J9 J46
PUMP 2
J18
K8
P2 HI
J50

A/V HOT
J33
J38 J31
J30
J14
REMOTE
J40

22614_A
J5 AUX
J6 AUX
J7 AUX
J8 AUX

SENSOR B
AUX TEMP
SENSOR A
J29
J28 AUX FRZ
J23 SERIAL
J108 RLY 9/10
J107 RLY 7/8

J36 MAIN
J34 MAIN
J35 MAIN

J102 J103 J101 J100 J106 J105 J104
RLY2 RLY3 RLY1 O3 RLY6 RLY5 RLY4

HTR1
HTR2
HTR3

EXPANDER X-P332
W1 PUMP 3
J1
RIGHT EXPANDER BOARD
F1 30A
J6
J7

NETZSTROMVERSORGUNG
2-GESCHW.-PUMPE 3
ALIMENTATION POMPE 3
A 2 VITESSES
PUMP 3 OPTION USED IN SETUPS
1, 2, 6, 7, 11
*1-SPD./ 1-GESCHW./ 1 VITESSES
IN SETUP 11

LOCATION	DEVICE	VOLTS	AMPS	FROM	TO	FROM	TO
J1 ON RT EXPANDER	2 SPD* PUMP 3	240V	12A MAX	W1 ON EXPANDER	GROUP 2 J73	J6 ON EXPANDER	GROUP 3 J98

LOCATION	DEVICE	VOLTS	AMPS	FROM	TO	FROM	TO
J1 ON LT EXPANDER	BLOWER	240V	4A MAX	W12 ON EXPANDER	GROUP 2 J72	J3 ON EXPANDER	F8 GROUP J61

SPRUDELGEBLASE
VENTILATEUR
BLOWER OPTION USED IN SETUPS
1, 3, 5, 6, 8, 10

J3
F5 10A 250V
J2
EXPANDER X-B
W12
BLOWER J6
K1

PART A

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Settings

SINGLE SERVICE 230V 1ϕ / 1x32A, THREE-SERVICE 230V 1ϕ / 3x16A

LOCATION	DEVICE
J9	NETZSTROMVERSORGUNG 2-GESCHW.-PUMPE 1 ALIMENTATION POMPE 1 A 2 VITESSES 2-SPEED PUMP 1
J14	NETZSTROMVERSORGUNG 2-GESCHW.-PUMPE 2 ALIMENTATION POMPE 2 A 2 VITESSES 2-SPEED PUMP 2
J15	10V BELEUCHTUNG ECLAIRAGE BAIN HYDRO SPA LIGHT
J21	KREISLAUF PUMPE POMPE DE CIRCULATION CIRC PUMP
J32	OZONGENERATOR GENERATOROZONE OZONE GENERATOR
J33	TV / AV
J40	IR RECIEVER
J41	TRANSFORMATOR TRANSFORMATEUR TRANSFORMER
J5 J6 J7, J8	AUX PANEL(S) - AX10, AX20, AX30, AX40

230V 1ϕ 1x32A

1-SPD. / 1-GESCHW. / 1 VITESSES IN SETUP 11

CIRC PUMP OPTION
PROGRAMMABLE FILTRATION CYCLES + POLLING
USED IN SETUPS
1, 2, 3, 4, 5, 11

PUMP 1 LOW TIMEOUT IS 15 MINUTES FOR CIRC SYSTEMS. PUMP 1 LOW TIMEOUT IS 120 MINUTES FOR NON-CIRC SYSTEMS.

SETUP #	CIRC PUMP	PUMP 1	PUMP 2	PUMP 3	BLOWER
1	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	2-SPEED	1-SPEED
2	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	2-SPEED	
3	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED		1-SPEED
4	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED		
5	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED		1-SPEED
6		2-SPEED	2-SPEED	2-SPEED	1-SPEED
7		2-SPEED	2-SPEED	2-SPEED	
8		2-SPEED	2-SPEED		1-SPEED
9		2-SPEED	2-SPEED		
10		2-SPEED	1-SPEED		1-SPEED
11	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	1-SPEED	

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

SYSTEM WILL BE IN SETUP #1
UNLESS MARKED OTHERWISE

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

USE COPPER CONDUCTORS ONLY.
EMPLOYER UNIQUEMENT
DES CONDUCTEURS DE CUIVRE.

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

230V 3ϕ / 3x16A → 230V 3ϕ 3x16A

T0 F8 J87 J43 J99 J3 J10 J1 J73 J70 J74 J4 J72 J71 COM N.O. N.C. K5

J94 1 BRN BLU 2 BRN 3 BRN GRN

J52 J51 J98 J2 J93 J89 J88 J53 J79 J54 J77 J76 J75 J78

SWITCHBANK S1 OFF / SWITCHBANK S1 ON

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**
NOT ASSIGNED	◄ A7	NOT ASSIGNED
NOT ASSIGNED	◄ A8	NOT ASSIGNED
NOT ASSIGNED	◄ A9	NOT ASSIGNED
NOT ASSIGNED	◄ A10	NOT ASSIGNED

*SWITCH # 5 HAS NO EFFECT IN SETUP 11.
**SWITCH # 6 SHOULD BE SET TO OFF UPON FINAL INSTALLATION.

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**
NOT ASSIGNED	◄ A7	NOT ASSIGNED
NOT ASSIGNED	◄ A8	NOT ASSIGNED
NOT ASSIGNED	◄ A9	NOT ASSIGNED
NOT ASSIGNED	◄ A10	NOT ASSIGNED

*SWITCH # 5 HAS NO EFFECT IN SETUP 11.
**SWITCH # 6 SHOULD BE SET TO OFF UPON FINAL INSTALLATION.

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PART B

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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

System is shipped in Setup 1

Pump 1 Low timeout is 15 minutes for Circ systems.

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

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Changing Software Setups

D R A F T

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.

ON ▶
1
10
S1
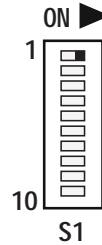
Software Setups

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.

102°F   High Range

Set: **104°F**   **Spa**
8:32 PM   **Shortcuts**
Ozone   **Settings**
Filter 1   **Test**   ▶

Ready in Rest Mode
Heating

Back

Test

Setup   **1** ▶
A/B Temps   Off
Fault Log   ▶
Timeouts   Normal
Temp Limit   Yes

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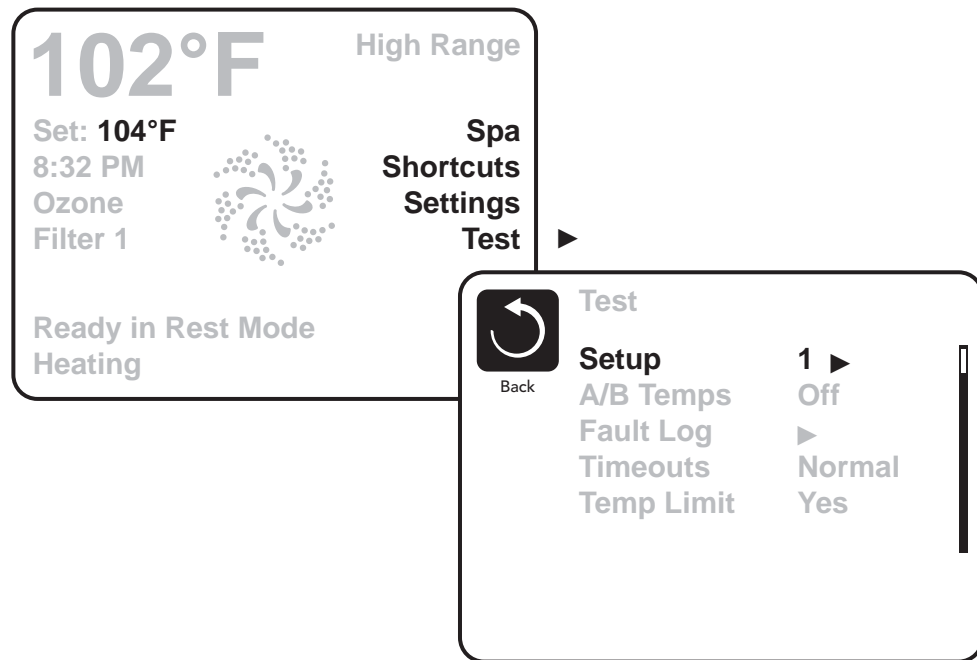
Equipment Expansion

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

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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).
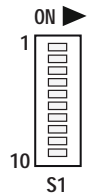
A2, A3, and A4 work in combination to determine the number of high-speed devices and blowers that can run before the heat is disabled. i.e. A2 and A3 in the ON position and A4 in the OFF position will allow the heater to operate with up to 3 high-speed pumps (or two HS Pumps and Blower) running at the 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

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J93 J94	Must be soldered in place for UL and cUL	J94
	Note: *Single service, 50A or 60A.*	J93
J109	GFCI Test/Trip Enable	J109
	Note: *This feature must be enabled in software as well.*	
J91	Real Time Clock Enable/Disable	J91
	Note: *This Jumper should NOT be shorted when the Control Panel can display time of day.*	
J30 J31	Do Not Use	
J29	Do Not Use	J29
HTR 1, 2, 3	Heater Type Settings.	
	Note: *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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BP2500/2600 Configuration Options

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 Purge	60 Seconds
Blower Purge	30 Seconds
Mister Purge	5 Seconds

Blue Indicates New Custom Configuration Default (Setup 1)

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BP2500/2600 Configuration Options

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Temperature Features

Feature	Default
Temperature Display	*°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	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
Temp Lock Type	Temp + Settings

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

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.

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BP2500/2600 Configuration Options

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

May be changed by end-user (if enabled)

Blue Indicates New Custom Configuration Default (Setup 1)

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BP2500/2600 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)

Blue Indicates New Custom Configuration Default (Setup 1)

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BP2500/2600 Configuration Options

Special Features

Feature	Default
Special Amperage Rule A	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

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TP600 Panel Features

Feature	Default
Button 1	Jets 1
Button 2	Jets 2
Button 3	Blower
Button 4	Up
Button 5	Light 1
Button 6	Down
LED 1	Jets 1
LED 2	Jets 2
LED 3	Light
LED 4	Heat

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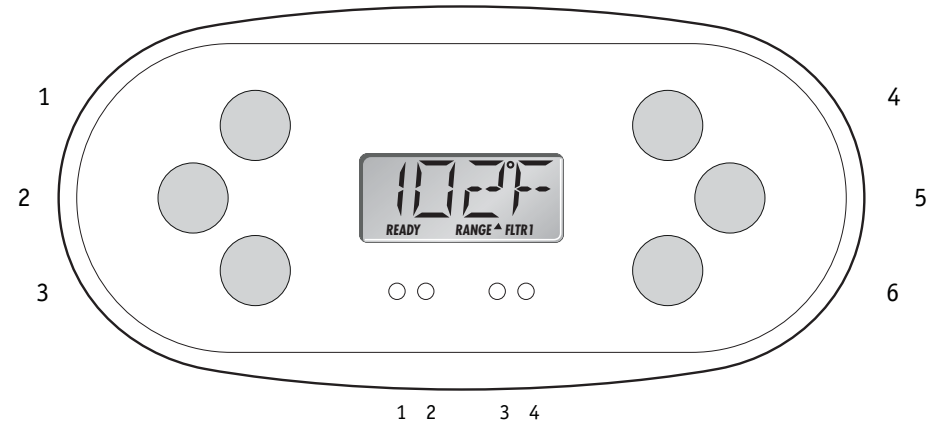
TP900 Panel Configuration

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

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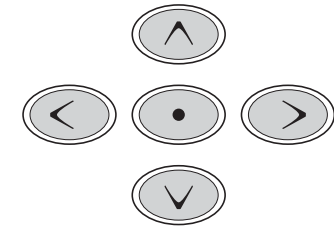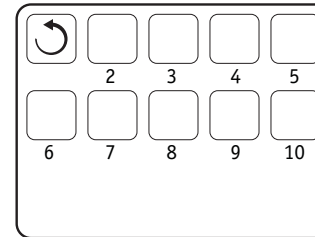
Shortcuts Screen
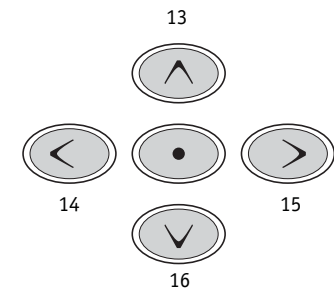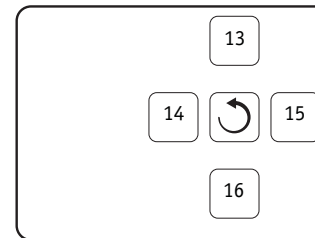
A Circ Icon will appear when a Circ Pump is configured using Setups 1, 2, 3, 4, 5, 11

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BP2500/2600 Configuration Options

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

*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.

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BP2500/2600 Configuration Options

Auxilliary Panel Features

AX10 Panels on Bank 1*

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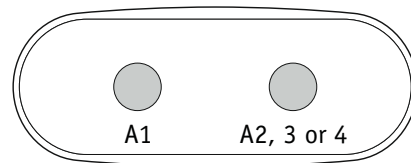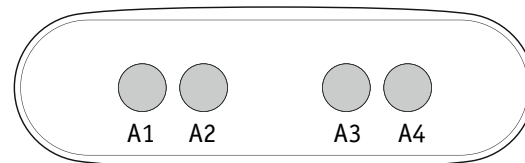A3, AX10A3   No O/L   55805 ▶
A4, AX10A4   No O/L   52806

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

A1   A2, 3 or 4

AX40

AX40   No O/L   52799

A1   A2   A3   A4

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.

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 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.
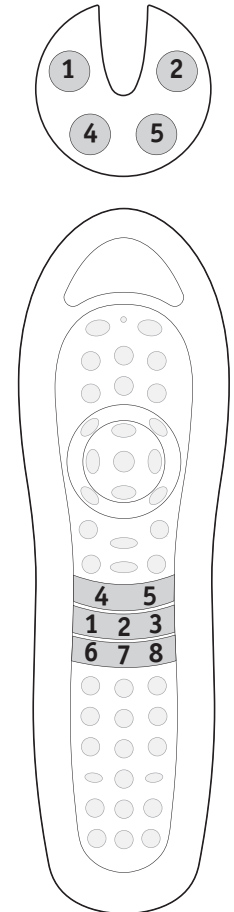
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BP2500/2600 Configuration Options

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

Remote Panel Part Number _____

Overlay Part Number _____

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