BP20P4BC Tech Sheet

Customer: Balboa Water Group

Part Number: 56696-01 800 Incoloy 5.5kW

56697-01 825 Incoloy 5.5kW 56698-01 Titanium 5.5kW

Custom Box Overlay

Box Overlay Part Number N/A

UL System Model: BP20-BP20P4BC-AU Software Version ID: M100 220 V36.0

Software Version: 36.0

File Name: BP2000_36.0_BP20P4BC_TP6.hex

Configuration Signature: 3C9424DE

Eng. Project Number: 4776

Control Panels:

spaTouch™2 Any version (version 2.0 or later required for bba™2 fully integrated functionality)

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





System Revision History

| Part # | EPN | Date | Originator | Changes Made |
|----------------------------------|------|----------|------------|---|
| ZT000125 | 4412 | 11-20-14 | BWG | New generic BP2000 system, with 4 Pumps, plus optional Blower and optional Circ. |
| 56696 56697 56698 | 4412 | 12-11-14 | BWG | Release to production. |
| 56696-01 56697-01 56698-01 | 4776 | 10-27-16 | BWG | Updated to latest software version, adding topside-intergrated bba™2 support. Also added TP600 support. Released to production. |
| | | | | |

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

bba™ is only integrated into graphic display panels (TP800, TP900 and spaTouch™). With TP600 the Aux button operation of bba™ must be used.

bba™2 is only integrated into graphic display panels (TP800, TP900 and spaTouch™). bba™2 does not support Aux button operation.



Basic Functions Setup 1-8

Power Requirements:

240VAC, 50/60Hz*, 48A, Class A GFCI-protected service (Circuit Breaker = 60A max.), 4 wires [hot, hot, neutral, ground]

System Ouputs:

| • | • | | | |
|--------------|-------------|--|---------------------------|--|
| Pump 1 | | 2-Speed 1-Speed in See eater pump in 20 GPM throu | Setups 6-8 | 15-minute timer for High Speed, 15-Minute timer for Low Speed |
| Pump 2 | 240VAC | 2-Speed : | 12A max* etups 2-5, 7- | 15-minute timer -8 |
| Pump 3 | 240VAC | 1-Speed | 10A max* | 15-minute timer |
| Pump 4 | 240VAC | 1-Speed | 10A max* | 15-minute timer |
| Blower | 240VAC | 1 Speed Unused in Se | 5A max* tups 1, 3, 5, | 15-minute timer 6 & 8 |
| Circ Pump | | 1-Speed eater pump in 20 GPM throu | • | Programmable Filtration Cycles + Polling |
| 0zone | 120VAC** | | .5A max* | Slaved to Circ Pump in Setups 1-5 Independent in Setups 6-8 |
| Spa Light | 10VAC | 0n/0ff | 1A max | 240-minute timer. |
| A/V (Stereo) | 120VAC | Hot | 5A max* | Always on |
| Heater | 5.5kW @ 240 | OVAC max | | |
| | | | | |

* These are individual maximums but depending on the electrical services they may need to be reduced.

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.

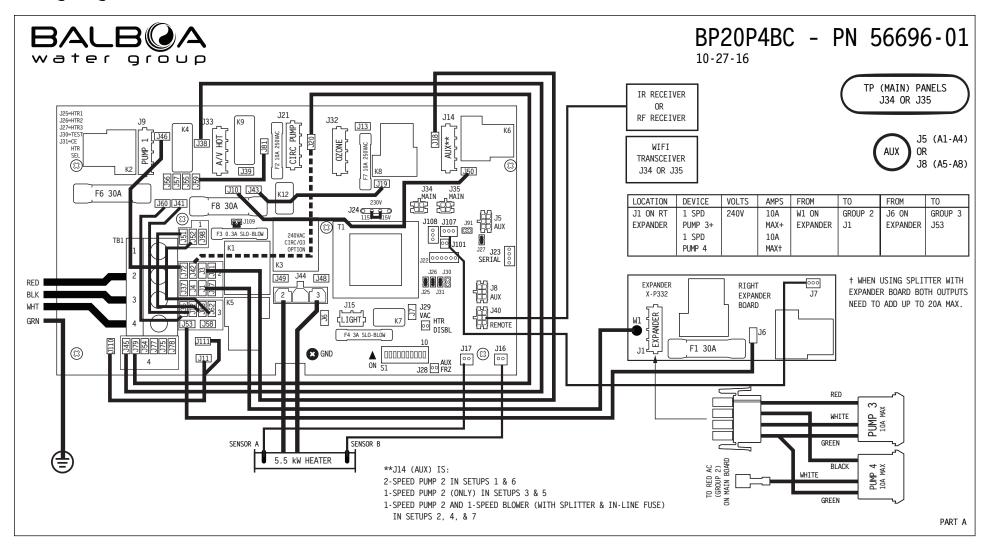


^{*}BP systems automatically detect 50Hz vs 60Hz.

^{**}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.)

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

| LOCATION | DEVICE | VOLTS | MAX AMPS | FROM | T0 |
|----------|----------------|----------|------------|---------|-------------|
| J9 | PUMP 1 | 240V | 12A MAX | J46 | J72-GROUP 2 |
| J14 | AUX | 240V | 12A MAX | J18 | J3-GROUP 2 |
| | AUX LINE 1 CO | NNECTION | J19,J50 | J43,J10 | |
| J15 | SPA LIGHT | 12V | 1A | | |
| J21 | CIRC PUMP | 120V* | 2A MAX | J20 | J79-GROUP 4 |
| J32 | OZONE | | 1A | | |
| | CIRC AND OZONI | E LINE 1 | CONNECTION | J81 | J59 |
| J33 | TV / AV | 120V | 3A | J38 | J45-GROUP 4 |
| J44 | HEATER | 240V | 5.5 kW | | |

^{*} FOR 240V CIRC PUMP AND OZONE. CONNECT J20 TO J42 (IN GROUP 2)

| SETUP | CIRC PUMP | PUMP 1 | PUMP 2 | PUMP 3 | PUMP 4 | BLOWER | TEMP |
|-------|-----------------------------------|---------|---------|---------|---------|---------|-------|
| # | | | | | | | SCALE |
| 1 | PROGRAMMABLE FILTRATION + POLLING | 2-SPEED | 2-SPEED | 1-SPEED | 1-SPEED | NONE | °F |
| 2 | PROGRAMMABLE FILTRATION + POLLING | 2-SPEED | 1-SPEED | 1-SPEED | 1-SPEED | 1-SPEED | °F |
| 3 | PROGRAMMABLE FILTRATION + POLLING | 2-SPEED | 1-SPEED | 1-SPEED | 1-SPEED | NONE | °F |
| 4 | PROGRAMMABLE FILTRATION + POLLING | 1-SPEED | 1-SPEED | 1-SPEED | 1-SPEED | 1-SPEED | °F |
| 5 | PROGRAMMABLE FILTRATION + POLLING | 1-SPEED | 1-SPEED | 1-SPEED | 1-SPEED | NONE | °F |
| 6 | NONE | 2-SPEED | 2-SPEED | 1-SPEED | 1-SPEED | NONE | °F |
| 7 | NONE | 2-SPEED | 1-SPEED | 1-SPEED | 1-SPEED | 1-SPEED | °F |
| 8 | NONE | 2-SPEED | 1-SPEED | 1-SPEED | 1-SPEED | NONE | °F |

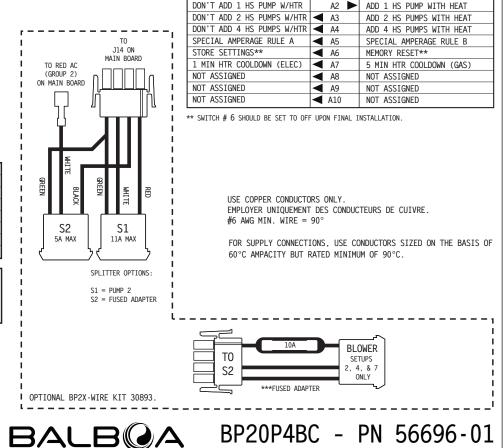
INSTEAD OF SETUP #5. THIS SYSTEM IS CONFIGURED IN SETUP #:

TOROUE 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



03-02-20

SWITCHBANK S1 OFF

DON'T ADD 1 HS PUMP W/HTR

TEST MODE OFF

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.



SWITCHBANK S1 ON

TEST MODE ON

■ A1

A2 >

water group

Setup Reference Table

| Setup # | Circ Pump | Pump 1 | Pump 2 | Pump 3 | Pump 4 | Blower | Temp Scale |
|---------|-----------------------------------|---------|---------|---------|---------|---------|------------|
| 1 | Programmable Filtration + Polling | 2-Speed | 2-Speed | 1-Speed | 1-Speed | None | °F |
| 2 | Programmable Filtration + Polling | 2-Speed | 1-Speed | 1-Speed | 1-Speed | 1-Speed | °F |
| 3 | Programmable Filtration + Polling | 2-Speed | 1-Speed | 1-Speed | 1-Speed | None | °F |
| 4 | Programmable Filtration + Polling | 1-Speed | 1-Speed | 1-Speed | 1-Speed | 1-Speed | °F |
| 5 | Programmable Filtration + Polling | 1-Speed | 1-Speed | 1-Speed | 1-Speed | None | °F |
| 6 | None | 2-Speed | 2-Speed | 1-Speed | 1-Speed | None | °F |
| 7 | None | 2-Speed | 1-Speed | 1-Speed | 1-Speed | 1-Speed | °F |
| 8 | None | 2-Speed | 1-Speed | 1-Speed | 1-Speed | None | °F |

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

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



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

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

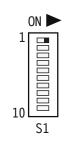
DANGER! HIGH VOLTAGE WILL BE ACCESSIBLE! SERVICE TECHNICIAN ONLY!

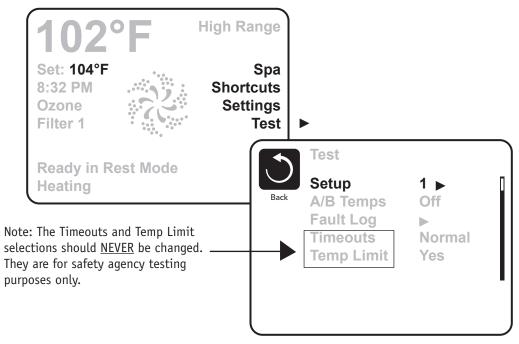
While the system is running, move DIP Switch 1 (on S1 on the Main circuit board) to ON. The system will enter Test Mode.

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.







Equipment Expansion

| Expansi | on | Features |
|---------|----|-----------------|
| Control | Co | nnection |

Control ConnectionDefaultFuseRelay 1 (J101)UndefinedNoneRelay 7/8 (J107)See Below30A

1-Speed Pump 3 And 1-Speed Pump 4 (With Splitter)

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. | d in conjunction with the spa. | | | |
| J25, J26, J27 | Heater Type Settings. Note: Factory Configured do not change. | J27 J25 [2] 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. | 230V J24 0 0 0 0 115V | | | |

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.



Replacement Parts

PCBA:

Main PCBA: 56699-01 Expander PCBA: 55137

HEATER(s):

Plug + Click Heater Kit: 58306 5.5kW 800 Inc

58307 5.5kW 825 Inc

58308 5.5kW Titanium

Temp Sensor Kit: 53605

CABLES: 25093 P3/P4 Adapter

FUSES:

Part Number Amperage Location
30136 30A F6, F8, F1 (Expander)
20600 3A F4

20600 3A F4 21581 3/10A F3 30122 10A F2, F7



Default

60 Seconds

30 Seconds

5 Seconds

General Features

Feature

Pump Purge

Blower Purge

Mister Purge

Purge Type

| reature | Derautt |
|------------------------------------|------------------------|
| 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 |
| Closup as Proforance setting | Yes |
| Cleaup as Preference setting | res |
| 0zone | With Heater Pump* |
| Ozone Suppression | OFF |
| | |



Serial - Pumps at lowest speed

^{*} The heater Pump can be either a Circ Pump or Pump 1 Low.

Temperature Features

Feature Display Pefault

Temperature Display Perature Dis

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 | <i>32</i> | 33 | 34 | <i>35</i> | 36 | <i>37</i> | 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° |
| Hi-Range Default Temp* | 100° |
| 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)

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)

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 | <i>OFF</i> |
| Treat Wood | OFF |
| Change Filter | 365 Days |

BALB@A
water group

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

Special Features

Feature Default

Special Amperage Rule A No Limitation

Special Amperage Rule B 3 high-speed pumps max. Blower turns off with 3 high speed pumps

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 # | Setups 1 - 8 | |
|-------------|--------------|--|
| 1 | Jets 1 | |
| 2 | Jets 2 | |
| 3 | Jets 3 | |
| 4 | Temperature | |
| 5 | Light 1 | |
| 6 | Jets 4 | |
| LED 1 | Jets 1 | |
| LED 2 | Jets 2 | |
| LED 3 | Light 1 | |
| LED 4 | Heat On | |



In all Setups, the button labeled "AUX" on overlay 13579 (shown below) controls Jets 4. In Setups 2, 4, 7 (which have a Blower), an AX10A3 auxiliary panel plugged into J5 (Bank 1) must be used to control the Blower.





TP800 Panel Configuration

Button Lavout Table

Template 56377 10-05-12

| Feature | Blower & Circ NO Blower & Circ | | Blower & No Circ | NO Blower & | |
|---------|--------------------------------|------------------|------------------|--------------|--|
| # | Setups 2 & 4 | Setups 1, 3, & 5 | Setup 7 | No Circ | |
| | | | | Setups 6 & 8 | |
| A1 | N/A | N/A | N/A | N/A | |
| A2 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | |
| А3 | Jets 2 | Jets 2 | Jets 2 | Jets 2 | |
| A4 | Jets 3 | Jets 3 | Jets 3 | Jets 3 | |
| A5 | Jets 4 | Jets 4 | Jets 4 | Jets 4 | |
| A6 | Blower | Light 1 | Blower | Light 1 | |
| A7 | Light 1 | Invert | Light 1 | Invert | |
| A8 | Invert | (Circ Icon) | Invert | Undefined | |
| А9 | (Circ Icon) | Undefined | Undefined | Undefined | |
| A10 | Undefined | Undefined | Undefined | Undefined | |
| A11 | N/A | N/A | N/A | N/A | |
| A12 | N/A | N/A | N/A | N/A | |
| A13 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | |
| A14 | Jets 2 | Jets 2 | Jets 2 | Jets 2 | |
| A15 | Jet 3 | Jet 3 | Jet 3 | Jet 3 | |
| A16 | Jet 4 | Jet 4 | Jet 4 | Jet 4 | |
| B1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | |
| B2 | Jets 2 | Jets 2 | Jets 2 | Jets 2 | |
| В3 | Blower | Jets 3 | Blower | Jets 3 | |
| B4 | Light 1 | Light 1 | Light 1 | Light 1 | |

Overlay Part Number 12512.

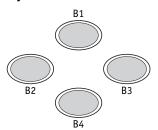


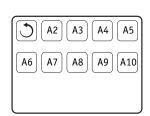
Button labled "AUX" controls Blower in Setups 2, 4, & 7, and controls Jets 3 in all other Setups.

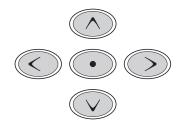


TP800 Panel Configuration

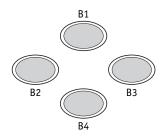
Spa Screen

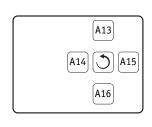


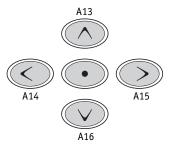




Shortcuts Screen







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

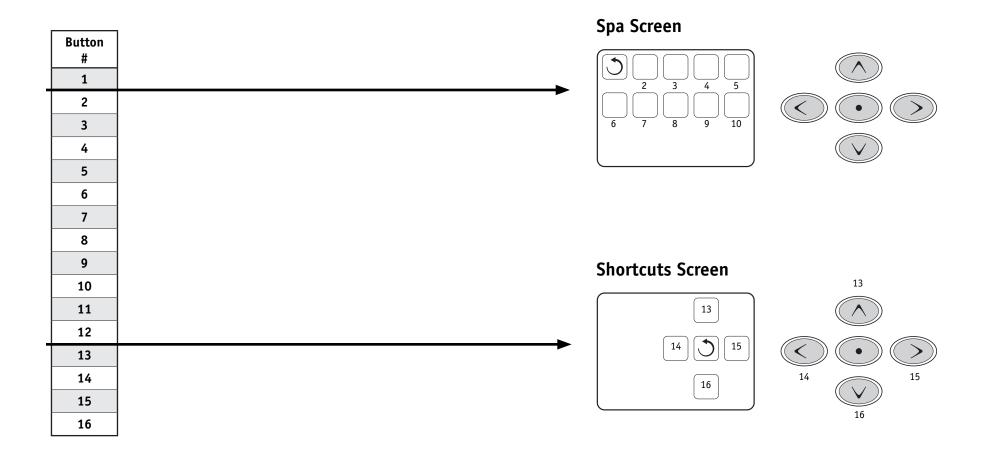
Button Layout Table

| Feature | Blower & Circ | NO Blower & Circ | Blower & No Circ | NO Blower & |
|---------|---------------|------------------|------------------|--------------|
| # | Setups 2 & 4 | Setups 1, 3, & 5 | Setup 7 | No Circ |
| | • | • • • | · | Setups 6 & 8 |
| A1 | N/A | N/A | N/A | N/A |
| A2 | Jets 1 | Jets 1 | Jets 1 | Jets 1 |
| А3 | Jets 2 | Jets 2 | Jets 2 | Jets 2 |
| A4 | Jets 3 | Jets 3 | Jets 3 | Jets 3 |
| A5 | Jets 4 | Jets 4 | Jets 4 | Jets 4 |
| A6 | Blower | Light 1 | Blower | Light 1 |
| A7 | Light 1 | Invert | Light 1 | Invert |
| A8 | Invert | (Circ Icon) | Invert | Undefined |
| А9 | (Circ Icon) | Undefined | Undefined | Undefined |
| A10 | 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 | Jets 3 | Jets 3 | Jets 3 | Jets 3 |
| 16 | Jet 4 | Jet 4 | Jet 4 | Jet 4 |

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



TP900 Panel Configuration



Auxilliary 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 |

Auxilliary 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 | Jets 4 |

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.



Auxilliary Panel Features

AX10 Panels on Bank 1*

A1, AX10A1 No 0/L 52803
A2, AX10A2 No 0/L 52804
A3, AX10A3 No 0/L 52805 ▶
A4, AX10A4 No 0/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 |

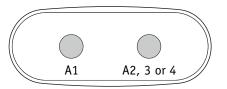
*Bank 1 consists of J5 on the Main Circuit Board.

Bank 2 consists of J8 on the Main Circuit Board.

Aux Connection Splitter PN 25257 may be required.

AX20

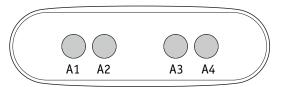
| AX20 A1A2 | No O/L | 52800 |
|-----------|--------|-------|
| AX20 A1A3 | No O/L | 52801 |
| AX20 A1A4 | No O/L | 52802 |



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 0/L 52799

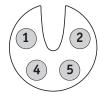


AX40 Auxiliary Panel plugged into Bank 1 will operate A1 + A2, A3 and A4. AX40 Auxiliary Panel plugged into Bank 2 will operate A5 + A6, A7 and A8.



Remote Panel Features

| Feature | Default |
|------------------|-----------|
| Remote Button A1 | Jets 1 |
| Remote Button A2 | Jets 2 |
| Remote Button A3 | Undefined |
| Remote Button A4 | Jets 3 |
| Remote Button A5 | Jets 4 |
| 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