# MXBP20 Tech Sheet

**Customer:** **Maax Spas**

**Part Number:** 56800-01 800 Incoloy


| | |
|---|---|
| Custom Box Overlay | ☒ |
| Box Overlay Part Number | 40547 |
| UL System Model: | BP20-MXBP20-AU |
| Software Version ID: | M100_220 V33.0 |
| Software Version: | 33.0 |
| File Name: | BP2000_33.0_MXBP20_1P.hex |
| Configuration Signature: | 56949AC7 |
| Eng. Project Number: | 4629 |

Control Panels:

| | |
|---|---|
| TP600 | version 2.7 or later (TP600CE may be used) |
| TP800 | version 3.1 or later (Version 3.13 or later required for bba™) |
| MXTP800 | version MX 3.10 or later (Version 3.13 or later required for bba™) |





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# System Revision History

| Part # | EPN | Date | Originator | Changes Made |
|---|---|---|---|---|
| 56551 | 4143 | 09-27-13 | Customer | New BP2000-based system with expander board. |
| 56551-01 | 4181 | 12-12-13 | Customer | Change default shipping setup to setup 2, make BP2X wired kit optional. Also make filter 2 default ON and 2 hours. |
| 56551-02 | N/A | 02-12-14 | Customer | Include BP2X-WIRE Kit 30893 with system. |
| ~~56551-03~~ | 4282 | 05-08-14 | Customer | Move Blower to consistent output (always on splitter plus fused adapter). Updated to latest software version, adding topside-intergrated bba™ support. |
| ZT000095 | 4282 | 05-20-14 | Customer | To avoid replacement board issues, this version will get new systems and board part numbers. |
| 56641 | 4282 | 05-30-14 | Customer | Customer approved for production. |
| ZT000185 | 4562 | 07-27-15 | Customer | Add DIP switch to select “Pump 1 in Filter with Circ“ |
| 56641-01 | 4562 | 09-08-15 | Customer | Approved for production. |
| ZT000218 | 4562 | 10-30-15 | Customer | Update to latest software version and default to Rest Mode. |
| 56800 | 4562 | 10-30-15 | Customer | Release to production. |
| ZT000242 | 4629 | 01-27-16 | Customer | Add 4 more Setups with only 1 pump. |
| 56800-01 | 4629 | 03-03-16 | Customer | Release to production. |
| | | | | |
| | | | | |

bba™ (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.

# Basic Functions Setup 1-14

## Power Requirements:

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

*BP systems automatically detect 50Hz vs 60Hz.

**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.

## System Ouputs:

| | | | | |
|---|---|---|---|---|
| Pump 1 | 240VAC | 2-Speed | 12A max | 15-minute timer for High Speed, 15-Minute timer for Low Speed in Circ Setups, 120-minute timer for Low Speed in Non-Circ Setups |
| | This is the heater pump in Setups 7 - 10, 13, & 14<br>Must deliver 20 GPM through heater | | | |
| Pump 2 | 240VAC | 2-Speed | 12A max | 15-minute timer<br>1-Speed in Setups 5 & 6<br>Unused in Setups 11 - 14 |
| Pump 3 | 240VAC | 2-Speed | 12A max | 15-minute timer<br>2-Speed in Setup 9<br>1-Speed in Setups 1, 2, 7, & 8<br>Unused in Setups 3, 4, 5, 6, & 10 - 14 |
| Blower | 240VAC | 1 Speed | 4A max | 15-minute timer<br>Unused in Setups 2, 4, 6, 8, 9, 10, 12, & 14 |
| Circ Pump | 240VAC* | 1-Speed | 2A max | 24-hour with 3˚F shutoff (outside of filter cycles) |
| | This is the heater pump in Setups 1 - 6, 11, & 12<br>Must deliver 20 GPM through heater | | | |
| Ozone | 240VAC* | | .5A max | Slaved to Circ Pump in Setups 1 & 6, 11 & 12<br>Independent in Setups 7 - 10, 13, & 14 |
| Spa Light | 10VAC | On/Off | 1A max | 60-minute timer. |
| Light 2 | 120VAC | | 4A max | 60-minute timer - Used for Laminar Fountain pump |
| A/V (Stereo) | 120VAC | Hot | 5A max | Always on |
| Heater | 5.5kW @ 240VAC max | | | |

*Both the Circ pump and Ozone can be converted to 120V, however they will be the same voltage after conversion. (Both 120V or both 240V.)

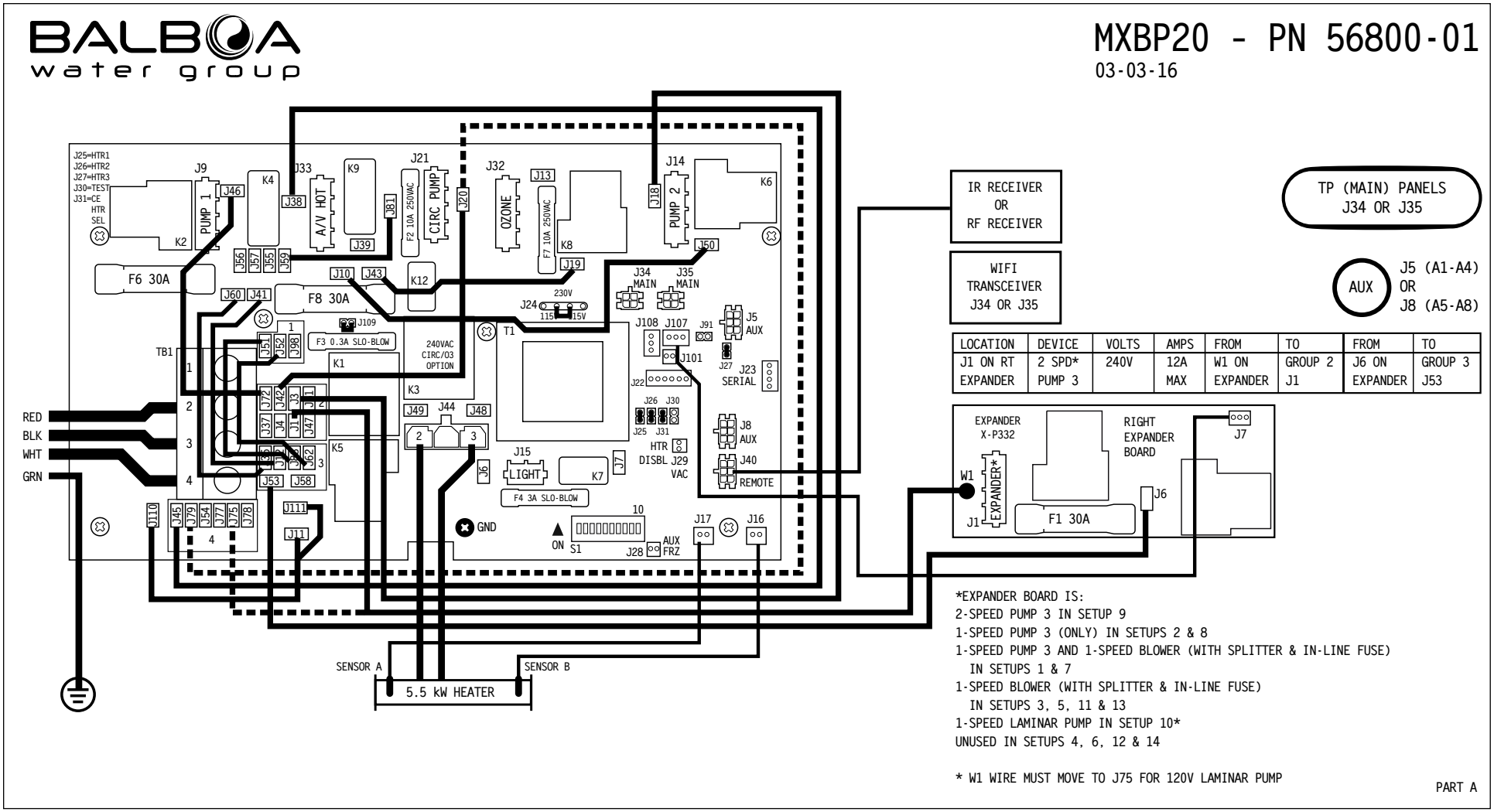




BALBOA water group

# Hardware Setup

## Wiring Diagram

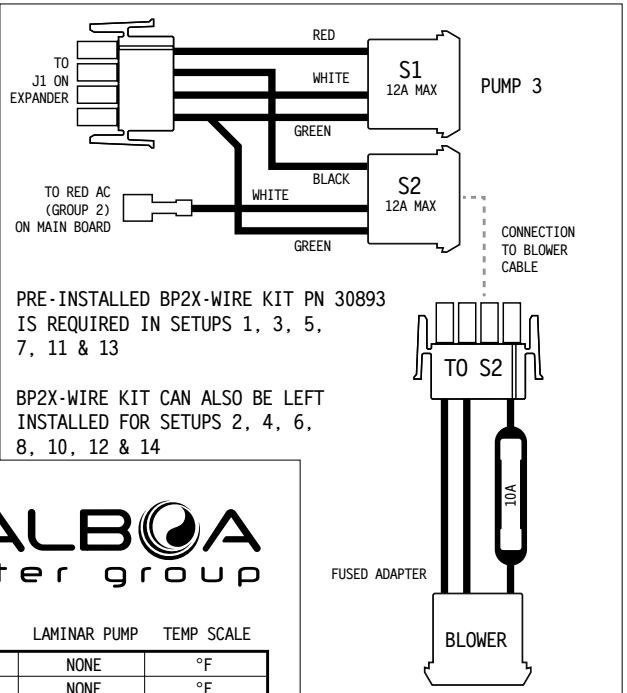


# Hardware Setup

## Settings

| LOCATION | DEVICE | VOLTS | MAX AMPS | FROM | TO |
|---|---|---|---|---|---|
| J9 | PUMP 1 | 240V | 12A MAX | J46 | J72-GROUP 2 |
| J14 | PUMP 2 | 240V | 12A MAX | J18 | J3-GROUP 2 |
| | PUMP 2 LINE 1 CONNECTION | | | J19,J50 | J43,J10 |
| J15 | SPA LIGHT | 12V | 1A | | |
| J21 | CIRC PUMP | 240V* | 2A MAX | J20 | J42-GROUP 2 |
| J32 | OZONE | | 1A | | |
| | CIRC AND OZONE LINE 1 CONNECTION | | | J81 | J59 |
| J33 | TV / AV | 120V | 3A | J38 | J45-GROUP 4 |
| J44 | HEATER | 240V | 5.5 kW | | |

* FOR 120V CIRC PUMP AND OZONE, CONNECT J20 TO J79 (IN GROUP 4)




PRE-INSTALLED BP2X-WIRE KIT PN 30893 IS REQUIRED IN SETUPS 1, 3, 5, 7, 11 & 13

BP2X-WIRE KIT CAN ALSO BE LEFT INSTALLED FOR SETUPS 2, 4, 6, 8, 10, 12 & 14

SPLITTER MUST BE REMOVED FOR SETUP 9

| 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 A |
| STORE SETTINGS** | ◀ A6 | MEMORY RESET** |
| 1 MIN HTR COOLDOWN (ELEC) | ◀ A7 | 5 MIN HTR COOLDOWN (GAS) |
| ONLY HEATER PUMP IN FILTER | ◀ A8 | P1 ASSISTS CIRC IN FILTER |
| NOT ASSIGNED | ◀ A9 | NOT ASSIGNED |
| NOT ASSIGNED | ◀ A10 | NOT ASSIGNED |

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

INSTEAD OF SETUP #2, THIS SYSTEM IS CONFIGURED IN SETUP #:

| SETUP # | CIRC PUMP | PUMP 1 | PUMP 2 | PUMP 3 | BLOWER | LAMINAR PUMP | TEMP SCALE |
|---|---|---|---|---|---|---|---|
| 1 | 24HR/3F | 2-SPEED | 2-SPEED | 1-SPEED | 1-SPEED | NONE | °F |
| 2 | 24HR/3F | 2-SPEED | 2-SPEED | 1-SPEED | NONE | NONE | °F |
| 3 | 24HR/3F | 2-SPEED | 2-SPEED | NONE | 1-SPEED | NONE | °F |
| 4 | 24HR/3F | 2-SPEED | 2-SPEED | NONE | NONE | NONE | °F |
| 5 | 24HR/3F | 2-SPEED | 1-SPEED | NONE | 1-SPEED | NONE | °F |
| 6 | 24HR/3F | 2-SPEED | 1-SPEED | NONE | NONE | NONE | °F |
| 7 | NONE | 2-SPEED | 2-SPEED | 1-SPEED | 1-SPEED | NONE | °F |
| 8 | NONE | 2-SPEED | 2-SPEED | 1-SPEED | NONE | NONE | °F |
| 9 | NONE | 2-SPEED | 2-SPEED | 2-SPEED | NONE | NONE | °F |
| 10 | NONE | 2-SPEED | 2-SPEED | NONE | NONE | 1-SPEED | °F |
| 11 | 24HR/3F | 2-SPEED | NONE | NONE | 1-SPEED | NONE | °F |
| 12 | 24HR/3F | 2-SPEED | NONE | NONE | NONE | NONE | °F |
| 13 | NONE | 2-SPEED | NONE | NONE | 1-SPEED | NONE | °F |
| 14 | NONE | 2-SPEED | NONE | NONE | NONE | NONE | °F |

USE COPPER CONDUCTORS ONLY.
EMPLOYER UNIQUEMENT DES CONDUCTEURS DE CUIVRE.
#6 AWG MIN. WIRE = 90°

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

TORQUE 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

## MXBP20 - PN 56800-01

03-03-16

PART B

# Setup Reference Table

| Setup # | Circ Pump | Pump 1 | Pump 2 | Pump 3 | Blower | Laminar Pump | Temp Scale |
|---|---|---|---|---|---|---|---|
| **1** | 24hr/3F | 2-Speed | 2-Speed | 1-Speed | 1-Speed | None | °F |
| **2** | 24hr/3F | 2-Speed | 2-Speed | 1-Speed | None | None | °F |
| **3** | 24hr/3F | 2-Speed | 2-Speed | None | 1-Speed | None | °F |
| **4** | 24hr/3F | 2-Speed | 2-Speed | None | None | None | °F |
| **5** | 24hr/3F | 2-Speed | 1-Speed | None | 1-Speed | None | °F |
| **6** | 24hr/3F | 2-Speed | 1-Speed | None | None | None | °F |
| **7** | None | 2-Speed | 2-Speed | 1-Speed | 1-Speed | None | °F |
| **8** | None | 2-Speed | 2-Speed | 1-Speed | None | None | °F |
| **9** | None | 2-Speed | 2-Speed | 2-Speed | None | None | °F |
| **10** | None | 2-Speed | 2-Speed | None | None | 1-Speed | °F |
| **11** | 24hr/3F | 2-Speed | None | None | 1-Speed | None | °F |
| **12** | 24hr/3F | 2-Speed | None | None | None | None | °F |
| **13** | None | 2-Speed | None | None | 1-Speed | None | °F |
| **14** | None | 2-Speed | None | None | None | None | °F |

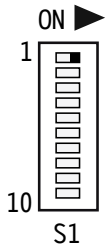
**System** (and any replacement board) **is shipped in Setup 2.**

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

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

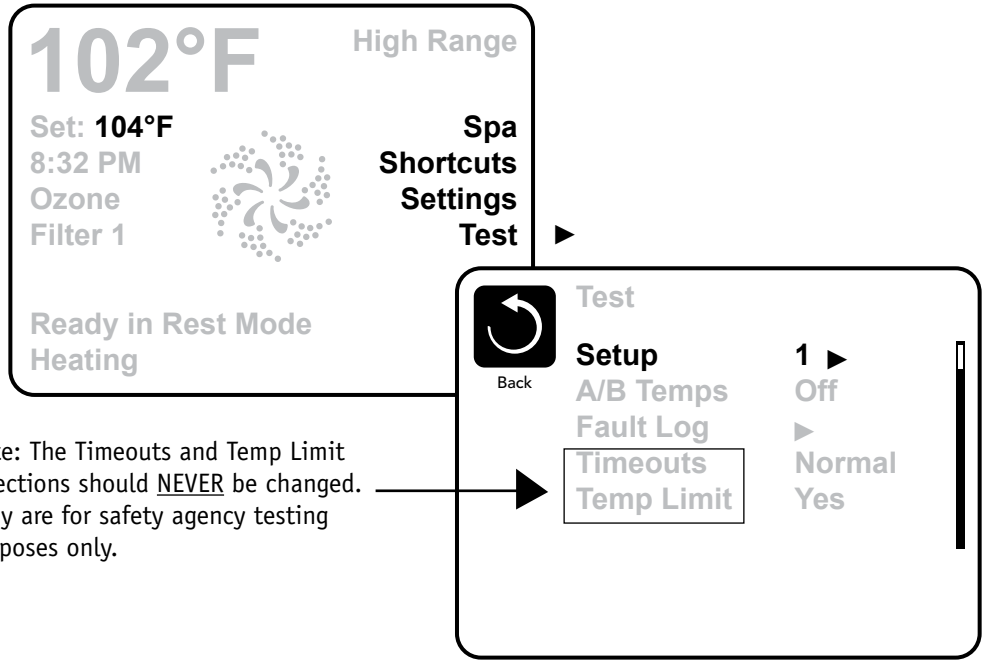
***DANGER! HIGH VOLTAGE WILL BE ACCESSIBLE! SERVICE TECHNICIAN ONLY!***

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.




Note: The Timeouts and Temp Limit selections should NEVER be changed. They are for safety agency testing purposes only.

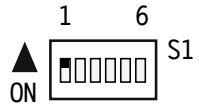
# Changing Software Setups with TP600 / TP400

## 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.

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

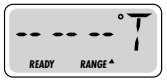



## Software Setups

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.**

# Changing Software Setups with TP600 / TP400 Continued

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

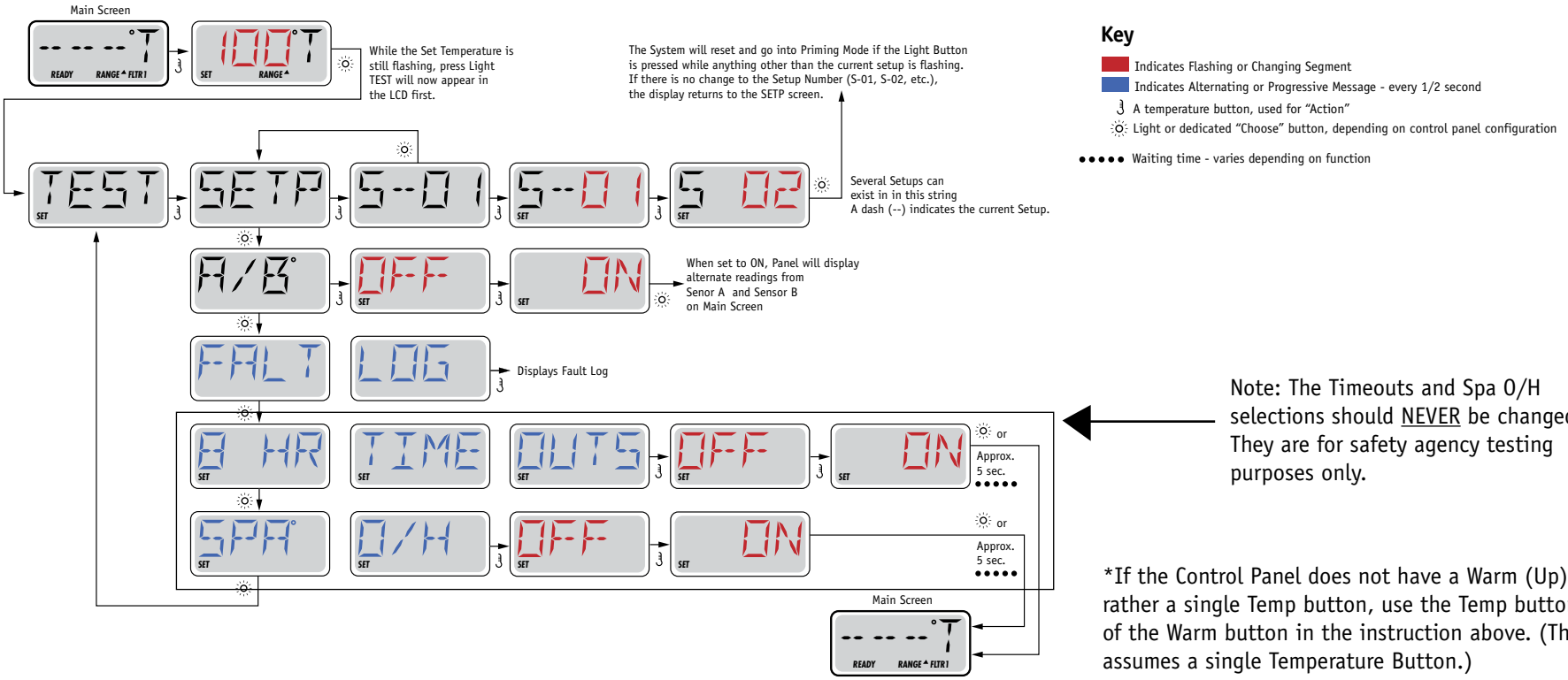
Immediately after exiting Priming Mode, press this sequence of buttons: Warm*, Light, Warm, Warm, Warm, Warm. Continue to press Warm until the diplay shows the Setup Number (S-01, S-02, etc.) you want to switch to. When the correct setup number is showing, press Light once, and the system will reset, 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.

THIS SYSTEM IS CONFIGURED AS SETUP #




**Key**

- Indicates Flashing or Changing Segment
- Indicates Alternating or Progressive Message - every 1/2 second
- A temperature button, used for "Action"
- Light or dedicated "Choose" button, depending on control panel configuration
- ••••• Waiting time - varies depending on function

Note: The Timeouts and Spa O/H selections should NEVER be changed. They are for safety agency testing purposes only.

*If the Control Panel does not have a Warm (Up) button, but rather a single Temp button, use the Temp button in place of the Warm button in the instruction above. (The flow chart assumes a single Temperature Button.)

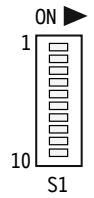
# Equipment Expansion

## Expansion Features

| Control Connection | Default | Fuse |
|---|---|---|
| Relay 1 (J101) | Undefined | None |
| Relay 7/8 (J107) | See Below | 30A |
| | 2-Speed Pump 3 in Setup 9<br>1-Speed Pump 3 (only) in Setups 2 & 8<br>1-Speed Pump 3 And 1-Speed Blower (With Splitter & In-Line Fuse) in Setups 1 & 7<br>1-Speed Blower (With Splitter & In-Line Fuse) in Setups 3, 5, 11 & 13<br>1-Speed Laminar Pump in Setup 10 (W1 wire on Expander Board must move to J75 on Main Board when using 120V Laminar Pump)<br>Unused in Setups 4, 6, 12 & 14 | |
| 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.<br>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.

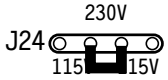
***Note:*** *A2/A3/A4 all off = No heat with any high-speed pump or blower.*

**Assignable DIP Switches**

| | |
|---|---|
| A7 | In “ON” position, enables a 5-minute cooldown for some gas heaters (Cooling Time B).<br>In “OFF” position, enables a 1-minute cooldown for electric heaters (Cooling Time A). |
| A8 | In “ON” position, Pump 1 (at lowest speed) assists Circ Pump in Filter Cycles (on Circ Setups only).<br>In “OFF” position, only the heater pump runs during Filter Cycles. |

*Undesignated switches are not assigned a function.*

# Jumper Definitions

| | | |
|---|---|---|
| **J109** | GFCI Test/Trip Enable/Disable<br>***Note:*** *This feature must be enabled in software as well.* | J109  |
| **J91** | Real Time Clock Enable/Disable<br>***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<br>*(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.<br>If J29 is shorted during power-up "J29" will appear on the panel.<br>The message can be dismissed with a button press, and is the only control panel notification of J29 being shorted.<br>No message is displayed if J29 is shorted after power-up, but the heater will not run until J29 is no longer shorted.<br>J29 expects a switch closure (not a voltage) as the command signal.<br>In some areas, a local power company may offer discounts based on voluntary "power shedding" devices that may be installed in conjunction with the spa. | J29  |
| **J25, J26, J27** | Heater Type Settings.<br>***Note:*** *Factory Configured do not change.* | J27  <br>J25   J26 |
| **J24** | Jumper on center two pins (230V) when heater is running at 240V.<br>Two Jumpers installed; one on left 2 pins and one on right 2 pins (115V) when heater is running at 120V. |  |

## 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.





BALBOA water group

# Replacement Parts

**PCBA:**

| | |
|---|---|
| Main PCBA: | 56801-01 |
| Expander PCBA: | 55137 |

**HEATER(s):**

| | |
|---|---|
| Plug + Click Heater Kit: | 58306 |
| Temp Sensor Kit: | 53605 |

**CABLES:** 30893 BP2X-Wire Kit

**FUSES:**

| Part Number | Amperage | Location |
|---|---|---|
| 30136 | 30A | F6, F8, F1 (Expander) |
| 20600 | 3A | F4 |
| 21581 | 3/10A | F3 |
| 30122 | 10A | F2, F7 |

# BP2000 Configuration Options

## General Features

| Feature | Default |
|---|---|
| Pump 1 in Filter Cycle (Circ Only) | No |
| Pump 1 Low Timer (Non Circ Only) | *120 Minutes* |
| General Pump Timer | 15 Minutes |
| Blower Timer | 15 Minutes |
| Mister Timer | 15 Minutes |
| Light Timer | 60 Minutes |
| Circ (when enabled) | *24 hr with 3˚F shutoff (outside of filter cycles)* |
| Cleanup Cycle | *30 Minutes* |
| Cleaup as Preference setting | *Yes* |
| Ozone | *Filter/Cleanup only* |
| Ozone Suppression | *60 Minutes* |
| Pump Purge | *30 Seconds* |
| Blower Purge | 30 Seconds |
| Mister Purge | 5 Seconds |
| Purge Type | Serial - Pumps at lowest speed |

# BP2000 Configuration Options

## Temperature Features

| Feature | Default |
|---|---|
| Temperature Display | °F |

*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 |
| Freeze Type | Rotating - Pumps at Lowest Speed |
| Temp Lock Type | Temp + Settings |

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

# BP2000 Configuration Options

## 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* | *ON* |
| Filter 2 Start Hour* | 08:00 (8:00 AM) |
| Filter 2 Duration* | *2 Hours* |
| 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)*





BALBOA water group

# BP2000 Configuration Options

## Reminder Features

| Feature | Default |
|---|---|
| Reminders Shown* | No |
| 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)*

# BP2000 Configuration Options

## Special Features

| Feature | Default |
|---|---|
| Special Amperage Rule A | No Limitation |
| Special Amperage Rule B | No Limitation |
| Drain Mode | Disabled |
| Demo Mode | Disabled |
| GFCI Trip | Enabled |
| Automatic GFCI Test | *7 Days* |
| Ozone Slaved to Heater Pump | *Yes in circ setups*<br>*No in non-circ setups* |
| Dual Voltage Heater | Always Input Voltage |
| Safety Suction | Disabled |
| Mode Default | *Rest Mode* |
| Range Default | High Range |

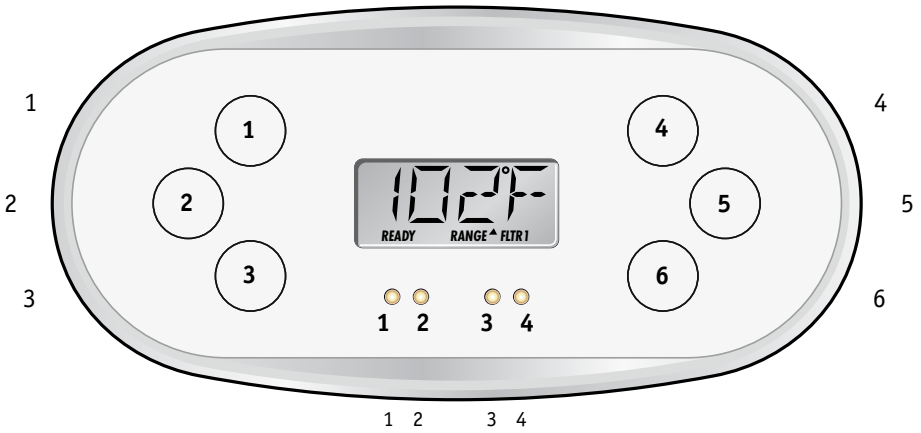
# TP600 Panel Configuration

## Button Layout Table

| Button # | Setups 1*, 3, 5, 7* | Setups 2*, 4, 6, 8*, 9* | Setups 11 & 12 | Setups 13 & 14 |
|---|---|---|---|---|
| **1** | Jets 1 | Jets 1 | Jets 1 | Jets 1 |
| **2** | Jets 2 | Jets 2 | Undefined | Undefined |
| **3** | Blower | Undefined | Blower | Undefined |
| **4** | Up | Up | Up | Up |
| **5** | Light 1 | Light 1 | Light 1 | Light 1 |
| **6** | Down | Down | Down | Down |
| **LED 1** | Jets 1 | Jets 1 | Jets 1 | Jets 1 |
| **LED 2** | Jets 2 | Jets 2 | Undefined | Undefined |
| **LED 3** | Light 1 | Light 1 | Light 1 | Light 1 |
| **LED 4** | Heat On | Heat On | Heat On | Heat On |

* Setups 1, 2, 7, 8, & 9 uses AX10A3 Aux panel for Jets 3.

Setup 10 is not supported on the TP600.




**TP600**

55676-XX

No Overlay

# TP800 Panel Configuration

## Button Layout Table

| Feature # | Setup 1* | Setup 2* | Setups 3 & 5 | Setups 4 & 6 | Setup 7* | Setup 8* | Setup 9 | Setup 10 | Setup 11 | Setup 12 | Setup 13 | Setup 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A1** | N/A | N/A | N/A | N/A | N/A | N/A | 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 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 |
| **A3** | Jets 2 | Jets 2 | Jets 2 | Jets 2 | Jets 2 | Jets 2 | Jets 2 | Jets 2 | Blower | Light 1 | Blower | Light 1 |
| **A4** | Jets 3 | Jets 3 | Blower | Light 1 | Jets 3 | Jets 3 | Jets 3 | Laminar Pump** | Light 1 | Invert | Light 1 | Invert |
| **A5** | Blower | Light | Light 1 | Invert | Blower | Light | Light | Light | Invert | (Circ Icon) | Invert | Undefined |
| **A6** | Light | Invert | Invert | (Circ Icon) | Light | Invert | Invert | Invert | Undefined | Undefined | Undefined | Undefined |
| **A7** | Invert | (Circ Icon) | (Circ Icon) | Undefined | Invert | Undefined | Undefined | Undefined | (Circ Icon) | Undefined | Undefined | Undefined |
| **A8** | (Circ Icon) | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| **A9** | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| **A10** | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| **A11** | N/A | N/A | N/A | N/A | N/A | N/A | 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 | N/A | N/A | N/A | N/A | N/A | N/A |
| **A13** | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| **A14** | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| **A15** | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| **A16** | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| **B1** | Jet 1 | Jets 1 | Jets 1 | Jets 1 | Jet 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 |
| **B2** | Jet 2 | Jets 2 | Jets 2 | Jets 2 | Jet 2 | Jets 2 | Jets 2 | Jets 2 | Undefined | Undefined | Undefined | Undefined |
| **B3** | Blower | Undefined | Blower | Undefined | Blower | Undefined | Jets 3 | Laminar Pump** | Blower | Undefined | Blower | Undefined |
| **B4** | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 |

* Setups 1, 2, 7, & 8 use AX10A3 Aux panel for Jets 3.

** Laminar Pump is labeled Cascade on Overlay and on Spa Screen on custom MXTP800 panel (PN 50376-XX), but is labeled Light 2 on Spa Screen on generic TP800 panel.

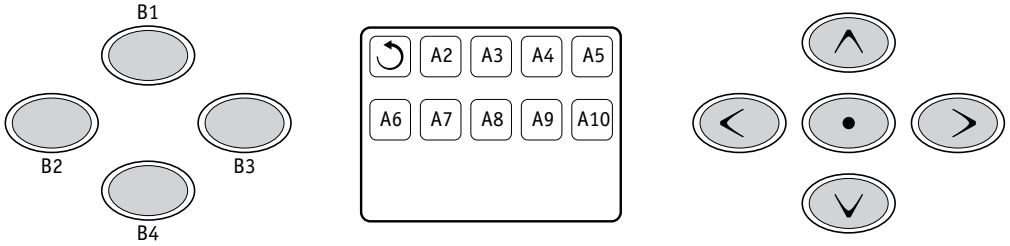




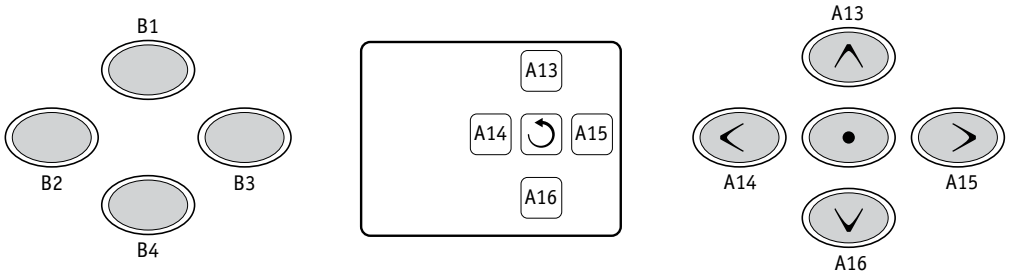
BALBOA water group

# 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.*

# BP2000 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 | *Blower* |


AX43 connects to J5

## Auxilliary Panel Features on Bank 2*

| Feature | Default |
|---|---|
| Aux Button A5 | *Jets 3* |
| Aux Button A6 | *Jets 3* |
| Aux Button A7 | *Jets 3* |
| Aux Button A8 | *Jets 3* |


AX10 connects J8

*Bank 1 consists of J5 on the Main Circuit Board.
Bank 2 consists of J8 on the Main Circuit Board.
**Aux Connection Splitter PN25257 may be required.**

Buttons that are assigned to equipment that is not defined in a Setup will not do anything in that Setup.





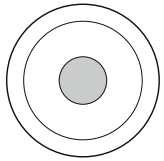
BALBOA water group

# BP2000 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 | 52805 ▶ |
| A4, AX10A4 | No O/L | 52806 |



**Call Customer Service for additional information about Auxiliary Panels.**

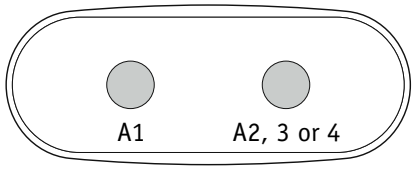
### AX10 Panels on Bank 2*

| | | |
|---|---|---|
| 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 PN25257 may be required.**

### AX20

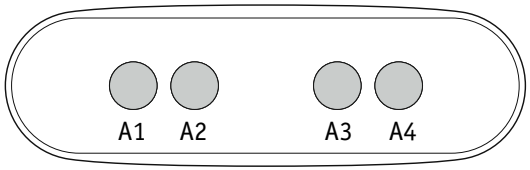
| | | |
|---|---|---|
| AX20 A1A2 | No O/L | 52800 |
| AX20 A1A3 | No O/L | 52801 |
| AX20 A1A4 | No O/L | 52802 |




**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 O/L | 52799 |

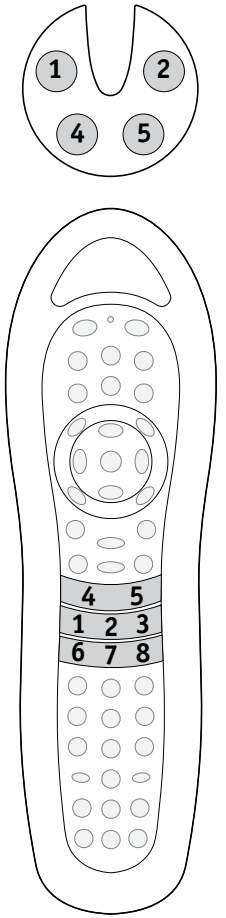



**AX40 Auxiliary Panel plugged into Bank 1 will operate A1 + A2, A3 and A4.**
**AX40 Auxiliary Panel plugged into Bank 2 will operate A5 + A6, A7 and A8.**

# BP2000 Configuration Options

## Remote Panel Features

| Feature | Default |
|---|---|
| Remote Button A1 | Undefined |
| Remote Button A2 | Undefined |
| Remote Button A3 | Undefined |
| Remote Button A4 | Undefined |
| Remote Button A5 | Undefined |
| 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 _____