# NBP6013H Tech Sheet

**Customer:** **NanTong**

**Part Number:** 56751     800 Incoloy 3kW
56771     800 Incoloy 2kW

Custom Box Overlay ☐

Box Overlay Part Number N/A

CE System Model for 2kW: BP21-NBP6013H-RCA2.0K
CE System Model for 3kW: BP21-NBP6013H-RCA3.0K
Software Version ID: M100_226 V27.0
Software Version: 27.0
File Name: BP6013_27.0_NBP6013H_2REM.hex
Configuration Signature: 27824C62

Eng. Project Number: 4546

Control Panels:

| | |
|---|---|
| TP800 | Version 3.1* and later (Version 3.13 or later required for bba™) |
| TP600CE | Version 2.7* and later - TP600 (non-CE) should not be used |
| TP400T | Version 2.7* and later |
| TP400W | Version 2.7* and later |

\* TP600/TP400T/TP400W version 2.14 or later required for new reminders to display correctly.
TP800 version 4.2 or later (or spaTouch™ version 2.2 or later) required for new reminders to display correctly.

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# System Revision History

| Part # | EPN | Date | Originator | Changes Made |
|--------|-----|------|------------|--------------|
| ZT000154 | 4467 | 03-03-15 | Customer | Custom BP6013 with expander board, mirror of NBP501X but with Circ Setups added. |
| ZT000162 | 4467 | 03-31-15 | Customer | Redesigned, eliminating 3-Pump Setups, and allowing heater on its own service in 3x16A. |
| 56751 | 4467 | 04-10-15 | Customer | Add two new reminders. Release to production. |
| 56771 | 4546 | 07-07-15 | Customer | Create 2.0kW version. |
| | | | | |

bba™ (Balboa Bluetooth Amp) connection is documented separately.

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

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# Basic Functions Setup 1-16

## Power Requirements:

**Single Service** [3 wires (line, neutral, ground)]
230VAC, 50/60Hz*, 1þ, 32A, (Circuit Breaker rating = 40A max.)

**Dual Service** [5 wires (line 1, neutral 1, line 2, neutral 2, ground)]
230VAC, 50/60Hz, 2þ, 16A, (Circuit Breaker rating = 20A max each phase line.)

**3-Service** [5 wires (line 1, line 2, line 3, neutral, ground)]
400VAC, 50/60Hz*, 3þ, 16A, (Circuit Breaker rating = 20A max each phase line.)

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

*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.

**In 3x16A Service:**

Pump 2 (if any) and Blower (if any) are on one service.

The Heater is on another service.

Everything else is on the remaining service.

**In 2x16A Service:**

Pump 2 (if any), Blower (if any), and the Heater are on one service.

Everything else is on the other service.

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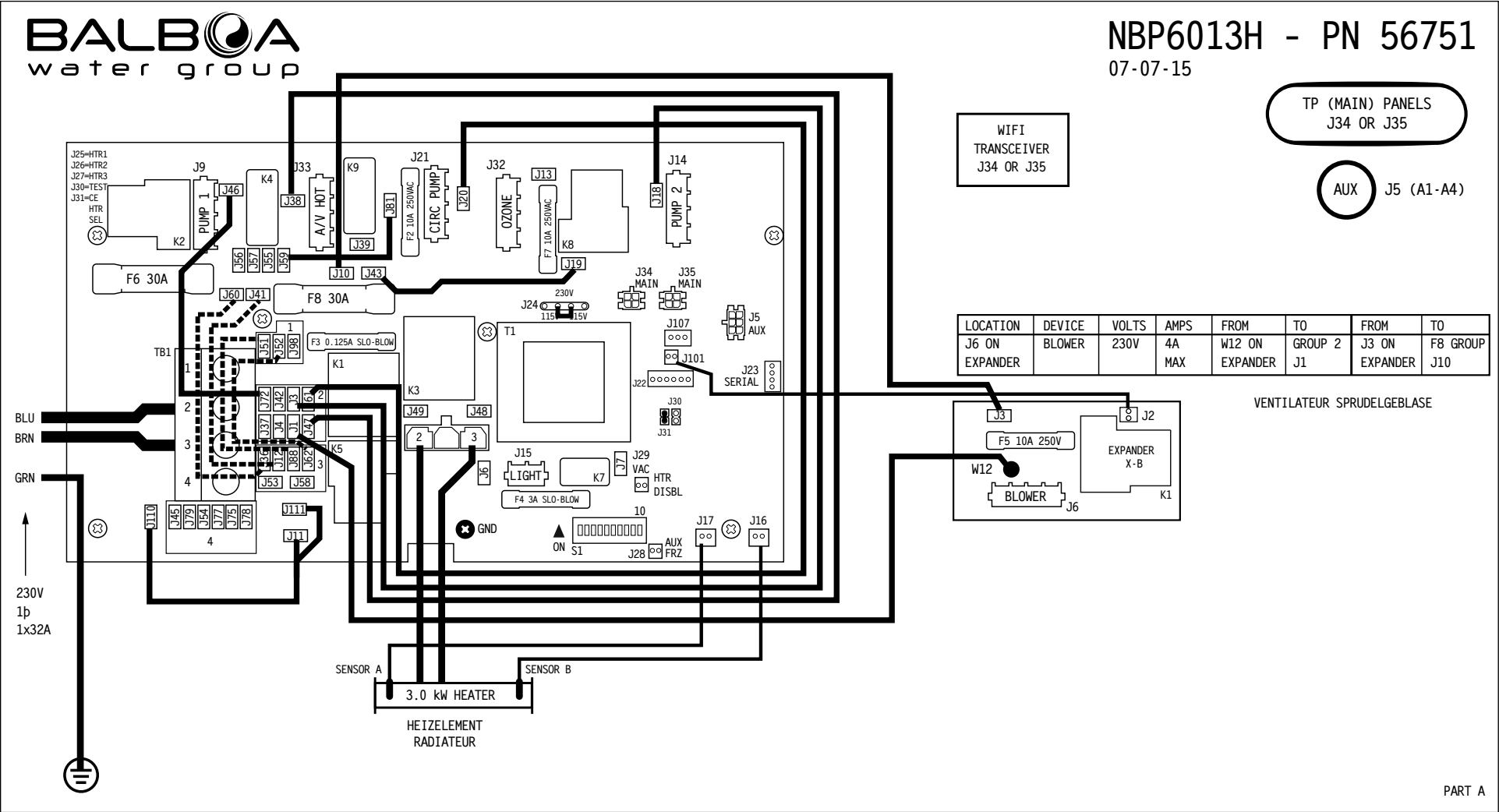water group

# Basic Functions Setup 1-16

## System Ouputs:

Pump 1      230VAC      2-Speed      12A max      15-minute timer (30-minute timer for P1 Low in non-circ setups only)
1 Speed in Setups in Setups 9 - 16
This is the heater pump in Setups 1 - 8.
Must deliver 20 GPM through heater

Pump 2      230VAC      1-Speed      12A max      15-minute timer
Unused in Setups 2, 4, 6, 8, 10, 12, 14 & 16

Blower      230VAC      1-Speed      4A max      15-minute timer
Used in Setups 1, 2, 5, 6, 9, 10, 13 & 14

Circ Pump      230VAC      1-Speed      2A max      Programmable Filtration Cycles + Polling
This is the heater pump in Setups 9 - 16.
Must deliver 20 GPM through heater

Ozone      230VAC          .5A max      Slaved to Circ Pump in Circ Setups 9 - 16.
Independent in Non-Circ Setups 1 - 8.

Spa Light      10VAC      On/Off      1A max      240-minute timer.

A/V (Stereo) 230VAC      Hot      4A max      Always on
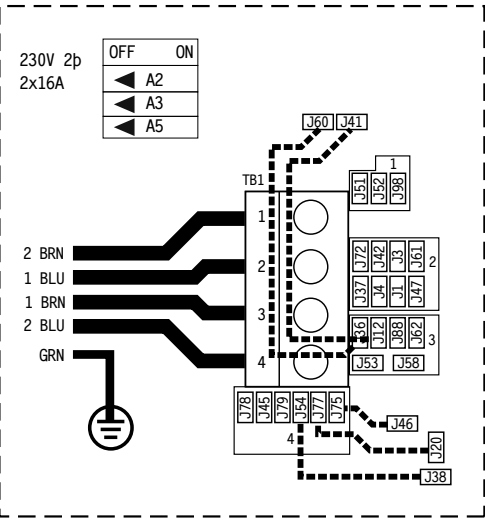
Heater      3.0kW @ 240VAC max

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# Hardware Setup

## Wiring Diagram



NBP6013H - PN 56751
07-07-15

TP (MAIN) PANELS J34 OR J35

AUX    J5 (A1-A4)

WIFI TRANSCEIVER J34 OR J35

| LOCATION | DEVICE | VOLTS | AMPS | FROM | TO | FROM | TO |
|----------|--------|-------|------|------|----|----|----|
| J6 ON EXPANDER | BLOWER | 230V | 4A MAX | W12 ON EXPANDER | GROUP 2 J1 | J3 ON EXPANDER | F8 GROUP J10 |

VENTILATEUR SPRUDELGEBLASE

EXPANDER X-B

BLOWER

F5 10A 250V

SENSOR A    SENSOR B

3.0 kW HEATER

HEIZELEMENT
RADIATEUR

230V
1ф
1x32A

BLU
BRN
GRN

PART A

## Settings

SINGLE SERVICE 230V 1þ / 1x32A, TWO-SERVICE 230V 2þ / 2x16A, THREE-SERVICE 230V 3þ / 3x16A

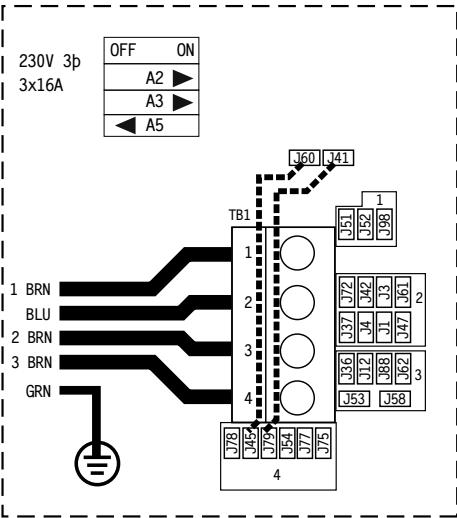| LOCATION | DEVICE |
|---|---|
| J9 | NETZSTROMVERSORGUNG 2/1-GESCHW.-PUMPE 1  ALIMENTATION POMPE 1 A 2/1 VITESSES  2/1-SPEED PUMP 1 |
| J14 | NETZSTROMVERSORGUNG 1-GESCHW.-PUMPE 2  ALIMENTATION POMPE 2 A 1 VITESSES  1-SPEED PUMP 2 |
|  | P2 LINE 1 CONNECTION          J19 to J43 |
| J15 | 10V BELEUCHTUNG  ECLAIRAGE BAIN HYDRO  SPA LIGHT |
| J21 | KREISLAUF PUMPE  POMPE DE CIRCULATION  CIRC PUMP |
| J32 | OZONGENERATOR  GENERATOROZONE  OZONE GENERATOR |
|  | CIRC AND OZONE LINE 1 CONNECTION          J81 to J59 |
| J33 | TV / AV |
| J5 | AUX PANEL(S) - AX10, AX20, AX30, AX40 |

230V 1þ
1x32A

| 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 | ◄ A8 | NOT ASSIGNED |
| NOT ASSIGNED | ◄ A9 | NOT ASSIGNED |
| NOT ASSIGNED | ◄ A10 | NOT ASSIGNED |

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

230V 2þ
2x16A

| OFF | ON |
|---|---|
| ◄ | A2 |
| ◄ | A3 |
| ◄ | A5 |

230V 3þ
3x16A

| OFF | ON |
|---|---|
|  | A2 ► |
|  | A3 ► |
| ◄ | A5 |



INSTEAD OF SETUP #13,THIS SYSTEM IS CONFIGURED IN SETUP #: ☐

| SETUP # | CIRC PUMP | PUMP 1 | PUMP 2 | PUMP 3 | BLOWER | TEMP SCALE | MENU STYLE |
|---|---|---|---|---|---|---|---|
| 1 | NONE | 2-SPEED | 1-SPEED | NONE | 1-SPEED | °C | STANDARD |
| 2 | NONE | 2-SPEED | NONE | NONE | 1-SPEED | °C | STANDARD |
| 3 | NONE | 2-SPEED | 1-SPEED | NONE | NONE | °C | STANDARD |
| 4 | NONE | 2-SPEED | NONE | NONE | NONE | °C | STANDARD |
| 5 | NONE | 2-SPEED | 1-SPEED | NONE | 1-SPEED | °C | SIMPLE |
| 6 | NONE | 2-SPEED | NONE | NONE | 1-SPEED | °C | SIMPLE |
| 7 | NONE | 2-SPEED | 1-SPEED | NONE | NONE | °C | SIMPLE |
| 8 | NONE | 2-SPEED | NONE | NONE | NONE | °C | SIMPLE |
| 9 | PGM FILT + POLLING | 1-SPEED | 1-SPEED | NONE | 1-SPEED | °C | STANDARD |
| 10 | PGM FILT + POLLING | 1-SPEED | NONE | NONE | 1-SPEED | °C | STANDARD |
| 11 | PGM FILT + POLLING | 1-SPEED | 1-SPEED | NONE | NONE | °C | STANDARD |
| 12 | PGM FILT + POLLING | 1-SPEED | NONE | NONE | NONE | °C | STANDARD |
| 13 | PGM FILT + POLLING | 1-SPEED | 1-SPEED | NONE | 1-SPEED | °C | SIMPLE |
| 14 | PGM FILT + POLLING | 1-SPEED | NONE | NONE | 1-SPEED | °C | SIMPLE |
| 15 | PGM FILT + POLLING | 1-SPEED | 1-SPEED | NONE | NONE | °C | SIMPLE |
| 16 | PGM FILT + POLLING | 1-SPEED | NONE | NONE | NONE | °C | SIMPLE |

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)

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NBP6013H - PN 56751
07-07-15                                PART B

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# Setup Reference Table

| Setup # | Circ Pump | Pump 1 | Pump 2 | Pump 3 | Blower | Temp Scale | Menu Style |
|---|---|---|---|---|---|---|---|
| 1 | None | 2-Speed | 1-Speed | None | 1-Speed | °C | Standard |
| 2 | None | 2-Speed | None | None | 1-Speed | °C | Standard |
| 3 | None | 2-Speed | 1-Speed | None | None | °C | Standard |
| 4 | None | 2-Speed | None | None | None | °C | Standard |
| 5 | None | 2-Speed | 1-Speed | None | 1-Speed | °C | Simple |
| 6 | None | 2-Speed | None | None | 1-Speed | °C | Simple |
| 7 | None | 2-Speed | 1-Speed | None | None | °C | Simple |
| 8 | None | 2-Speed | None | None | None | °C | Simple |
| 9 | Programmable Filtration + Polling | 1-Speed | 1-Speed | None | 1-Speed | °C | Standard |
| 10 | Programmable Filtration + Polling | 1-Speed | None | None | 1-Speed | °C | Standard |
| 11 | Programmable Filtration + Polling | 1-Speed | 1-Speed | None | None | °C | Standard |
| 12 | Programmable Filtration + Polling | 1-Speed | None | None | None | °C | Standard |
| 13 | Programmable Filtration + Polling | 1-Speed | 1-Speed | None | 1-Speed | °C | Simple |
| 14 | Programmable Filtration + Polling | 1-Speed | None | None | 1-Speed | °C | Simple |
| 15 | Programmable Filtration + Polling | 1-Speed | 1-Speed | None | None | °C | Simple |
| 16 | Programmable Filtration + Polling | 1-Speed | None | None | None | °C | Simple |

**System** (and any replacement board) **is shipped in Setup 13**

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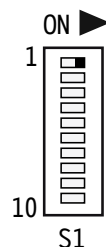# Changing Software Setups with TP800 / TP900 / spaTouch™ Menued Panel

## 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.
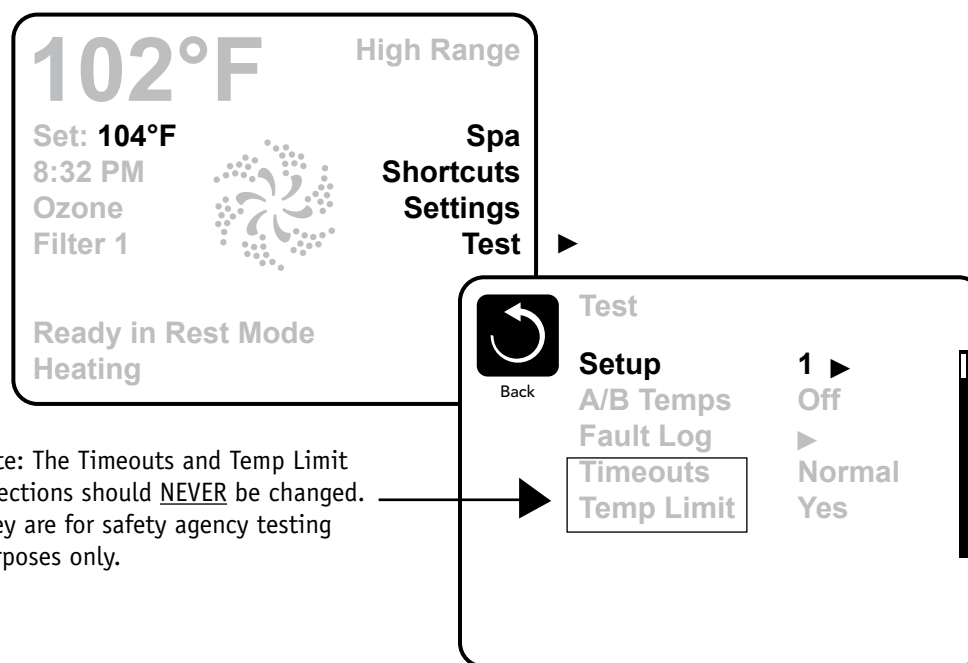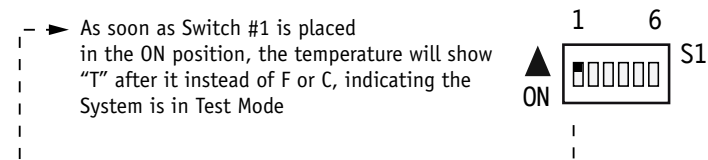Moving DIP Switch 1 to OFF will exit Test Mode.

## 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.

ON ▶

1

10

S1

**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

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

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# 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.
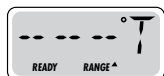
**Continued on Next Page.**

# Changing Software Setups with TP600 / TP400 Continued

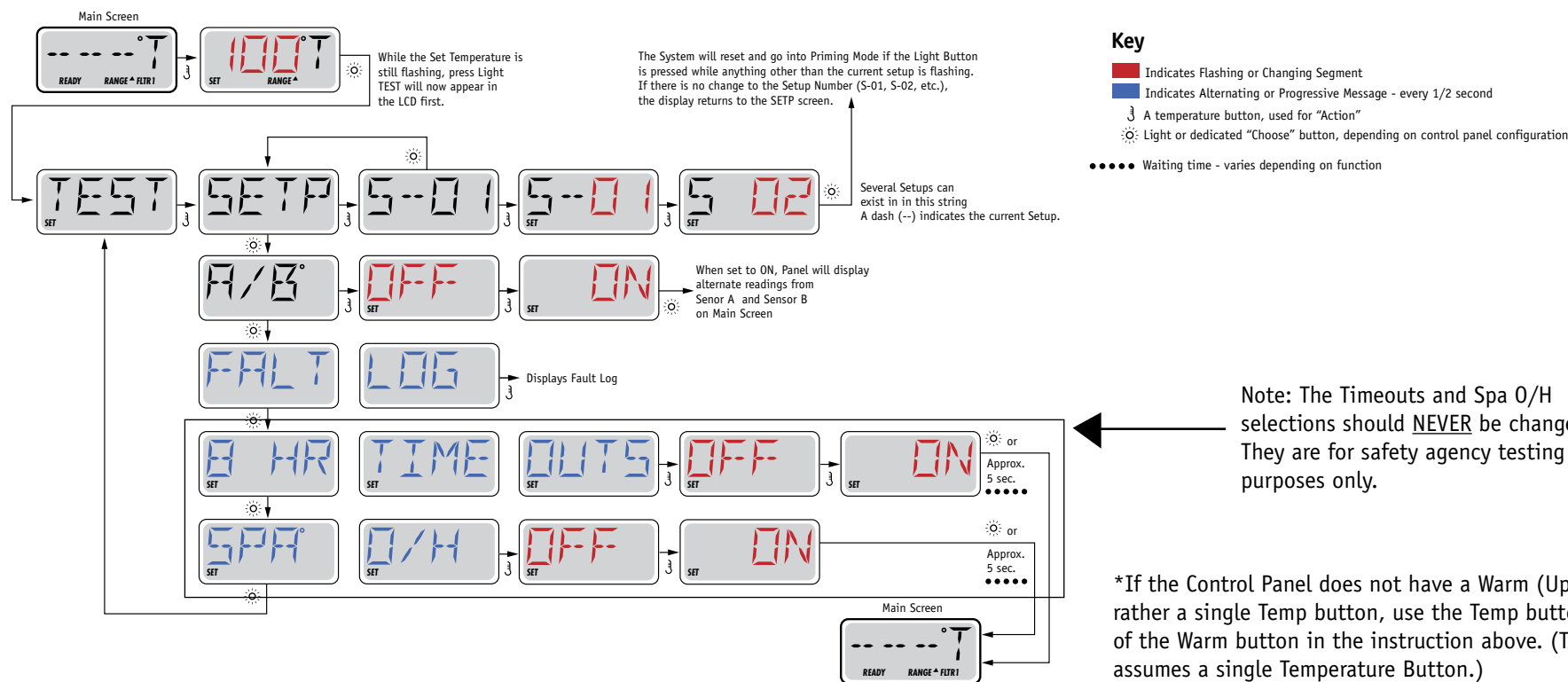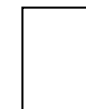Again, **You will have 1 minute** to complete the setup change after you manually exit Priming Mode.

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 #



Main Screen

While the Set Temperature is still flashing, press Light TEST will now appear in the LCD first.

The System will reset and go into Priming Mode if the Light Button is pressed while anything other than the current setup is flashing. If there is no change to the Setup Number (S-01, S-02, etc.), the display returns to the SETP screen.

Several Setups can exist in in this string A dash (--) indicates the current Setup.

When set to ON, Panel will display alternate readings from Senor A and Sensor B on Main Screen

Displays Fault Log

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

Approx. 5 sec.

Approx. 5 sec.

Main Screen

*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.)

**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

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# Equipment Expansion

## Expansion Features

| Control Connection | Default | Fuse |
|---|---|---|
| Relay 1 (J101) | 1-Speed Blower | 10A |
| Relay 7/8 (J107) | 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).
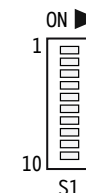
**A2, A3, and A4** work in combination to determine the number of high-speed devices and blowers that can run before the heat is disabled.  i.e. A2 and A3 in the ON position and A4 in the OFF position will allow the heater to operate with up to 3 high-speed pumps (or two HS Pumps and Blower) running at the same time. Heat is disabled when the fourth high-speed pump or blower is turned on.
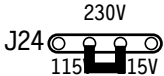
*Note:*  *A2/A3/A4 all off = No heat with any high-speed pump or blower.*

**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** | Not present on BP6013 board. |
| **J91** | Not present on BP6013 board. |
| **J30** | Do Not Use |
| **J31** | Jumper on 1 pin with 2.0kW or smaller heater<br>Jumper on 2 pins with a 3.0kW or higher heater |
| **J29** | Heater Disable Switch Connection. If J29 is shorted by any means, the heater will not run until J29 is no longer shorted.<br><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><br>J29 expects a switch closure (not a voltage) as the command signal.<br><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. |
| **J25, J26, J27** | Not present on BP6013 board. |
| **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. |

J31

J29

J24 230V / 115V / 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.

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# Replacement Parts

**PCBA:**

| | |
|---|---|
| Main PCBA: | 56752 3.0kW |
| | 56772 2.0kW |
| Expander PCBA: | 53310 |

**HEATER(s):**

| | |
|---|---|
| Plug + Click Heater Kit: | 58300 3.0kW |
| | 58289 2.0kW 800Inc |
| Temp Sensor Kit: | 53605 |

**CABLES:**     N/A

**FUSES:**

| Part Number | Amperage | Location |
|---|---|---|
| 30136 | 30A | F6, F8 |
| 20600 | 3A | F4 |
| 26397 | 1/8A | F3 |
| 30122 | 10A | F2, F7, F5 (Expander) |

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# BP6013 Configuration Options

## General Features

| Feature | Default | |
|---|---|---|
| Pump 1 in Filter Cycle (Circ Only) | No | |
| Pump 1 Low Timer | 30 Minutes | Applies in non-circ Setups (configurations) only |
| General Pump Timer | 15 Minutes | Applies to all pumps, except Pump 1 low in Non-Circ Setups |
| 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 | With Heater Pump* | |
| Ozone Suppression | OFF | |
| Pump Purge | 60 Seconds | |
| Blower Purge | 30 Seconds | |
| Mister Purge | 5 Seconds | |
| Purge Type | Serial - Pumps at lowest speed | |

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

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# BP6013 Configuration Options

## Temperature Features

| Feature | Default |
|---|---|
| Temperature Display | °C |

*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)*

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# BP6013 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* | *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)*

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# BP6013 Configuration Options

## Reminder Features

| Feature | Default |
|---|---|
| Reminders Shown* | *Yes* |
| Check pH | 7 Days |
| Check Sanitizer | 7 Days |
| Clean Filter | *7 Days* |
| Test GFCI | *60 Days* |
| Drain Water | 90 Days |
| Change Cartridge | OFF |
| Clean Cover | *90 Days* |
| Treat Wood | *OFF* |
| Change Filter | *120 Days* |
| Check Ozone (E047**) | *365 Days* |
| Service Check-up (E048**) | *240 Days* |

*** On TP panels that have not been updated to display these new reminders, they will display as these numeric codes.*

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

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# BP6013 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 | Not Applicable for CE Models |
| | |
| Ozone Slaved to Heater Pump | *Yes in circ setups* <br> *No in non-circ setups* |
| Dual Voltage Heater | Always Input Voltage |
| Safety Suction | Disabled |
| | |
| Menu Style | *Standard in Setups 1 - 4 & 9 - 12* <br> *Simple in Setups 5 - 9 & 13 - 16* |

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# TP800 Panel Configuration

## Button Layout Table

| Feature # | Setup 1 | Setup 2 | Setup 3 | Setup 4 | Setup 9 | Setup 10 | Setup 11 | Setup 12 |
|---|---|---|---|---|---|---|---|---|
| A1 | 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 |
| A3 | Jets 2 | Blower | Jets 2 | Light 1 | Jets 2 | Blower | Jets 2 | Light 1 |
| A4 | Blower | Light 1 | Light 1 | Invert | Blower | Light 1 | Light 1 | Invert |
| A5 | Light 1 | Invert | Invert | Undefined | Light 1 | Invert | Invert | (Circ Icon) |
| A6 | Invert | Undefined | Undefined | Undefined | Invert | (Circ Icon) | (Circ Icon) | Undefined |
| A7 | Undefined | Undefined | Undefined | Undefined | (Circ Icon) | Undefined | Undefined | Undefined |
| A8 | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| A9 | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| A10 | 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 |
| A12 | 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 |
| A14 | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| A15 | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| A16 | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined | Undefined |
| B1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 |
| B2 | Jets 2 | Blower | Jets 2 | Undefined | Jets 2 | Blower | Jets 2 | Undefined |
| B3 | Blower | Undefined | Undefined | Undefined | Blower | Undefined | Undefined | Undefined |
| B4 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 | Light 1 |

TP800 is not supported in Simplified Menu Setups 5 - 8 & 13 - 16.
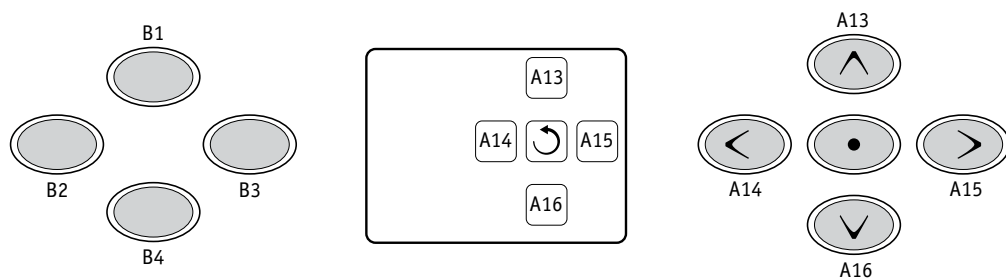
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# TP800 Panel Configuration

## Spa Screen

B1

B2    B3

B4

| ↺ | A2 | A3 | A4 | A5 |
|---|----|----|----|----|
| A6 | A7 | A8 | A9 | A10 |

∧

< • >

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## Shortcuts Screen

B1

B2    B3

B4

A13

A14 ↺ A15

A16

A13

∧

A14  < • >  A15

∨

A16
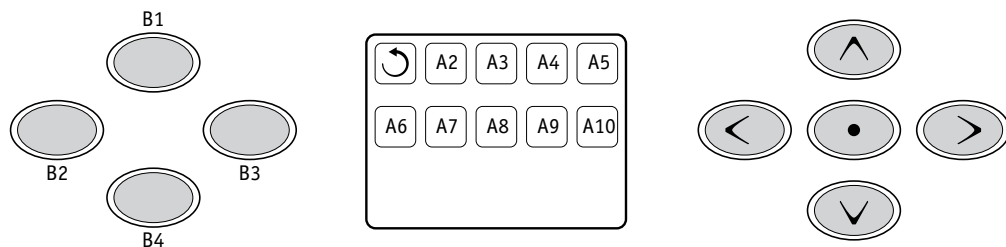
**Note:**  *Buttons 11 and 12 are not used in this configuration.*

*Button 1 is fixed.*

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# TP600 Panel Configuration

## Button Layout Table

| Button # | Setups 1, 5, 9 & 13 | Setups 2, 6, 10 & 14 | Setups 3, 7, 11 & 15 | Setups 4, 8, 12 & 16 |
|---|---|---|---|---|
| 1 | Jets 1 | Jets 1 | Jets 1 | Jets 1 |
| 2 | Jets 2 | Blower | Jets 2 | Undefined |
| 3 | Blower | Invert | Invert | Invert |
| 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 | Blower | Jets 2 | Undefined |
| LED 3 | Light 1 | Light 1 | Light 1 | Light 1 |
| LED 4 | Heat On | Heat On | Heat On | Heat On |

### TP600CE

50015-XX

No Overlay

TP600 (non-CE) should not be used.

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# TP400 Panel Configuration

## Button Layout Table for TP400T

| Button # | Setups 2, 6, 10 & 14 | Setups 3, 7, 11 & 15 | Setups 4, 8, 12 & 16 |
|---|---|---|---|
| 1 | Temperature | Temperature | Temperature |
| 2 | Jets 1 | Jets 1 | Jets 1 |
| 3 | Light 1 | Light 1 | Light 1 |
| 4 | Blower | Jets 2 | Undefined |
| LED 1 | Heater ON | Heater ON | Heater ON |
| LED 2 | Jets 1 ON | Jets 1 ON | Jets 1 ON |
| LED 3 | Light ON | Light ON | Light ON |
| LED 4 | Blower ON | Jets 2 ON | Undefined |

TP400T is not supported in Setups 1, 5, 9 & 13 (that have both Pump 2 and Blower).
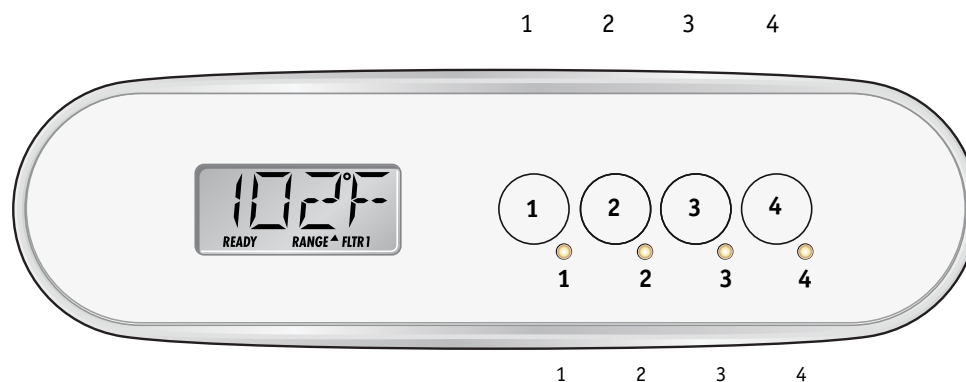
### TP400T

50260-XX

Includes overlay PN 12511.

## Button Layout Table for TP400W

| Button # | All Setups |
|---|---|
| 1 | Up |
| 2 | Down |
| 3 | Light 1 |
| 4 | Jets 1 |
| LED 1 | Heater ON |
| LED 2 | Undefined |
| LED 3 | Light ON |
| LED 4 | Jets 1 ON |

Use the TP400W for setups that only have one pump (No Blower or Pump 2).

### TP400W

50259-XX

Includes overlay PN 12510.

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# BP6013 Configuration Options

## 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 |

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

**Aux Connection Splitter PN25257 may be required.**

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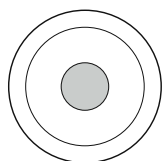not defined in a Setup will not do anything in that Setup.

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# BP6013 Configuration Options

## Auxilliary Panel Features

### AX10 Panels on Bank 1*

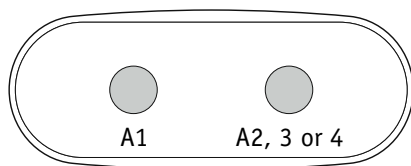| | | |
|---|---|---|
| A1, AX10A1 | No O/L | 52803 |
| A2, AX10A2 | No O/L | 52804 |
| A3, AX10A3 | No O/L | 52805 ▶ |
| A4, AX10A4 | No O/L | 52806 |

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

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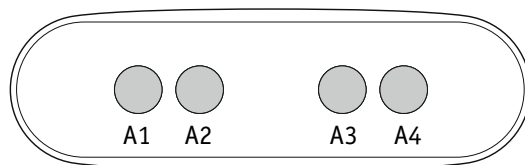
**Aux Connection Splitter PN25257 may be required.**

### AX20

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

A1        A2, 3 or 4

**AX20 Auxiliary Panel plugged into Bank 1 will operate A1 + A2, A3 or A4.**

### AX40

| | | |
|---|---|---|
| AX40 | No O/L | 52799 |

A1   A2        A3   A4

**AX40 Auxiliary Panel plugged into Bank 1 will operate A1 + A2, A3 and A4.**

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