Fourteen Hundred Spas

# HOT TUB OWNER'S MANUAL

**Premium Leisure LLC**
**6101 45th Street N**
**Saint Petersburg, FL 33714**
**727-573-9611**
**WWW.PREMIUMLEISURE.COM**

## Owner's Information

Dealer:

Date Purchased: _____
Company: _____
Address: _____
Telephone: _____

Installer:

Date Installed: _____
Company: _____
Address: _____
Telephone: _____

Hot Tub:

Date Delivered: _____
Model: _____
Color: _____
Serial Number: _____

Your unique hot tub serial number is located on a data plate outside the cabinet at ground level directly below the topside control panel. When calling for service, have your serial number in hand.

# Fourteen Hundred Spas Hot Tub Owner's Manual

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**Important:** Fourteen Hundred Spas is dedicated to offering you the best in customer satisfaction and service. Be sure to read, complete, sign, and **send in the limited warranty card within 30 days of purchase** to ensure you understand what you are entitled to in terms of service. If you have any questions, you can call our customer care center, at 727.573.9611.


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# Introduction

Your choice of a Fourteen Hundreds brand spa from Premium Leisure LLC indicates that you are devoted to excellence. The management and staff appreciate your patronage and takes pride in the tradition of quality spas that our company represents.

To properly acquaint yourself with your spa, we suggest that you take time to read through this manual before hook up and operation. Doing so will familiarize you with important operating and safety procedures, thereby ensuring an enjoyable experience right from the start.

If you need any more information than this manual provides, feel free to visit our Web site at www.premiumleisure.com or call our customer care center, at 727.573.9611.

⚠ **WARNING:** This manual was written to ensure the proper use and installation of your spa. Any modifications to the procedures outlined in this manual may result in voiding your warranty.

This manual and its contents are subject to change without notice. Although we have prepared this manual as accurate as possible, we are not liable for errors or omissions; loss, injury, or damages caused by improper installation; or use of spa (improper or otherwise).

Your new spa is made with quality synthetic materials. Synthetic materials won't fade and are nearly invulnerable to mold and mildew.

We recommend, however, periodic cleaning of the jets, the pillows, the spa cover, the acrylic surface, and the cabinet.

**NO DIVING**

**DANGER: DIVING MY RESULT IN SERIOUS INJURY OR DEATH**

# Important Safety Instructions

## IMPORTANT SAFETY INSTRUCTIONS
## SAVE THESE INSTRUCTIONS

Your physiological response to hot water depends on subjective factors such as age, health, pregnant women, temperature sensitivities, chemical sensitivities, and medical history. Always consult a physician before using a spa to understand your particular tolerance and limitations.

## READ AND FOLLOW ALL INSTRUCTIONS

WARNING – To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

A wire connector is provided on this unit to connect a minimum #6 (AWG) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the unit.

***** For units with GFCI:*** ⚠**Warning** – This product is provided with a ground-fault circuit interrupter located in the main panel. The GFCI must be tested before each spa use.

**DANGERS**

- ⚠ RISK OF ACCIDENTAL DROWNING: Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this spa unless they are supervised at all times. Always cover the spa and use safety locks when it is not in use.
- ⚠ RISK OF INJURY: The VGB suction fittings in this spa are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible. Never operate the spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.
- ⚠ RISK OF ELECTRIC SHOCK: Install at least 5 feet (1.5 m) from all metal surfaces. As an alternative, a spa may be installed within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum #6 (AWG) solid copper conductor to the wire connector on the terminal box that is provided for this purpose.

⚠ RISK OF ELECTRIC SHOCK: Do not permit any electric appliance, such as a light, telephone, radio or television, within 5 feet (1.5 m) of a spa. Do not operate such an appliance from either inside the spa or when you are wet, unless such appliances are built-in by the manufacturer.

**NO DIVING**

**DANGER: DIVING MY RESULT IN SERIOUS INJURY OR DEATH**

**WARNINGS**

⚠ **TO REDUCE THE RISK OF INJURY:**

- The water in a spa should never exceed 40˚C (104˚F). Water temperatures between 38˚C (100˚F) and 40˚C (104˚F) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.
- Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possible pregnant women should limit spa water temperatures to 38˚C (100˚F).
- Before entering a spa/spa, the user should measure the water temperature since the tolerance of water temperature regulating devices varies.
- The use of alcohol, drugs or medication before or during spa/spa use may lead to unconsciousness with the possibility of drowning.
- Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a spa.
- Persons using medication should consult a physician before using a spa/spa since some medication may include drowsiness while other medication may affect heart rate, blood pressure and circulation.

⚠ Do not connect auxiliary components (such as headphones, cables, and additional speakers) to the stereo (if equipped).
⚠ Do not use a spa immediately following strenuous exercise.
⚠ Do not use your spa alone.
⚠ Lock the cover on your spa when not in use.
⚠ Persons with infectious diseases should not use a spa.
⚠ Replace audio components only with identical components.
⚠ Do not leave the CD/Stereo/MP3 access door open on the

stereo (if equipped).

- ⚠ Some types of hair dye can react with the sanitizers in your spa water causing your hair to change color. Use at your own risk.
- ⚠ Water normally splashes out of a spa during typical use. Install an adequate perimeter that provides sound footing.
- ⚠ Do not turn your spa on/off from a wall switch, ground fault circuit interrupter, circuit breaker, fuse, or by plugging/unplugging it.
- ⚠ Remove all jewelry, metal, and watches from your person before entering your spa.
- ⚠ Keep all breakables away from the spa area.
- ⚠ Maintain water balance in accordance with instructions.
- ⚠ Do not sit on lip of the spa.

**NO DIVING**
**DANGER: DIVING MY RESULT IN SERIOUS INJURY OR DEATH**

## WARNING SIGN


**Warning Sign Must Be Posted** – The red WARNING sign like the one shown is packed with your new spa. This sign must be posted in a prominent place in close proximity to the spa installation site immediately upon completion of spa installation.

**Figure 2 – Warning Sign**

Important: It is extremely important that this sign be permanently placed in clear view of persons using the spa. Occasional spa users may not be aware of some of the dangers hot water poses to pregnant women, small children, seniors, and people under the influence of alcohol. If you did not receive a warning sign or your sign has become damaged, please call your local dealer for a replacement.

## HYPERTHERMIA

To reduce the risk of injury, the water temperature in a spa should never exceed 104˚F (40˚C). Water temperatures between 100˚F (38˚C) and

104˚F (40˚C) are considered safe for a healthy adult. Lower water temperatures are recommended for young children, senior citizens, persons with sensitivities, and when spa use exceeds 10 minutes.

WATER TEMPERATURE IN EXCESS OF 100˚F (38˚C) MAY BE INJURIOUS TO YOUR HEALTH.

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6˚F (37˚C). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include:

- ⚠ Unawareness of impending hazard
- ⚠ Failure to perceive heat
- ⚠ Failure to recognize the need to exit spa
- ⚠ Physical inability to exit spa
- ⚠ Fetal damage in pregnant women
- ⚠ Unconsciousness and danger of drowning

**If you sense any of the symptoms of hyperthermia, safely exit the spa immediately.**

# SAVE THESE INSTRUCTIONS

## BASIC SAFETY GUIDELINES

Your hot tub is meant to be enjoyable, healthful, and relaxing. Below are some basic safety guidelines to follow every time you use your hot tub.

- Always check the temperature of your hot tub before entering. High water temperatures can be hazardous to your health.
- Persons suffering from heart disease, diabetes, high or low blood pressure, and pregnant women should consult a doctor before using your hot tub.
- Persons under the influence of medication, drugs, or alcohol should not be allowed into your hot tub.
- Remove all jewelry, metal, and watches from your person before entering your hot tub.
- Do not allow children to use your hot tub without continuous supervision of an adult.
- Do not use your hot tub alone.
- Test the ground fault circuit interrupter (GFCI) breaker prior to using your hot tub each time to ensure it operates properly.

- Any electrical devices near your hot tub must be GFCI protected and out of reach from inside the hot tub.
- Keep all breakables away from the hot tub area.
- Lock the cover on your hot tub when not in use.
- Enter and exit the hot tub slowly. Wet surfaces can be slippery.
- Prolonged immersion can be hazardous to your health.

Maintain water chemistry in accordance with manufacturer's instructions.

- The hot tub is not to be used by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction
- Do not sit on lip of spa.

**NO DIVING DANGER: DIVING MY RESULT IN SERIOUS INJURY OR DEATH**

**BASIC WATER QUALITY GUIDELINES**

- *During the initial filling of the spa, add a sequestering agent to combat suspended minerals in the water. Allow water to circulate and filter for at least 12 hours before adding any other chemicals.*
- *Test water for PH, total Alkalinity, and Calcium hardness. The PH should be 7.2-7.8 and the total Alkalinity 80-180 PPM. Calcium hardness levels should be maintained between 150 and 400 PPM. Adjust PH and total Alkalinity (TA) utilizing the directions on the chemical bottles. Wait 15-30 minutes, test and adjust if necessary.*
- *Add 2 ounces of concentrated chlorinating granules (sodium Dichlor-s-triazinetreone) on initial start up to begin sanitizing the spa water. It is important not to add the chlorinating granules until the PH, alkalinity and calcium hardness have been adjusted to their proper levels.*
- *Check spa water with test strip for proper sanitation levels and adjust*

*accordingly to the proper levels. Free chlorine should be 2-4 PPM.*

- *We recommend a minimum level of 2 PPM residual chlorine be maintained in spa water. Be sure the pumps are running when adding chlorine or non-chlorine shock/oxidizer.*
- *Add 1 ounce of non-chlorine shock/oxidizer or ½ ounce of bromine to the spa water after each spa use.*

**FOR SPAS EQUIPPED WITH AUDIO COMPONENTS**

Audio components are optional and not available on all models.

⚠ **WARNING: Prevent Electrocution**: Do not connect any auxiliary components – for example, cable, additional speakers, headphones, etc., – to the system.

⚠ **Caution: Risk of Electric Shock**: Do not leave audio compartment door open. Replace audio components only with identical components.

# Site Selection and Installation

Proper planning is an important consideration when installing your new spa. Site selection is a critical step and requires serious thought. Planning ahead makes the installation process easier. The following information is provided to assist you in site preparations.

1) Always comply with local building codes and obtain any necessary permits. You may also need to consult with an engineer to address your specific design needs.
2) Contact an electrician to assess your electrical needs, install wiring, and assure a safe operation.
3) Position your spa with proper access to water, drainage, and electricity.
4) For **external installations**, place your spa on a uniform solid, flat surface designed to properly support its weight. For external installations, at least

   4" (10cm) thick concrete pad should be used. See below dimensions

   for conduit entry location for your model hot tub.
5) For **internal installations**, check the load carrying capabilities of the floor on which the spa will reside. Most homes meet the requirement of 80-90 Lbs per square foot. The ceiling should be more than 10 feet high (for safe entry and use), the floor should have a drain for splash over and the room should have a window or exhaust fan with humidistat for ventilation. If this is not possible, indoor/outdoor carpeting and the use of a dehumidifier while the cover is off should be adequate.
6) Assure that your spa will fit into the space you have chosen and the delivery route will accommodate its large size. Provide adequate ventilation for the humidity created by your spa. In most cases, a Spa Hard Cover is sufficient.
7) Protect the pumps and all equipment from the weather by ensuring the cabinet panels are secure at all times.
8) Allow 36 inches (1 meter) of unobstructed access to all sides of your spa for normal servicing. Consider positioning your spa out of or adequately protecting it from the wind. Just as people can get cold on cool/windy days, so can your spa. Windy environments can significantly increase operating costs.

   The following dimensions can be used to determine the proper location of submerged conduits in concrete slab installations. All dimensions are made from the outside of the hot tub's frame with the

access panels removed. The topside control panel is shown at bottom of diagram for reference.

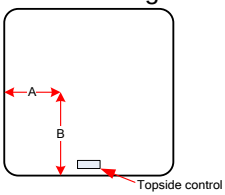



**Figure 3 – Conduit Entry Location Reference Points**

| Model | Dimension A | Dimension B |
|---|---|---|
| 1411 | 28”(71cm) | 11”(27.5cm) |
| 1412 | 28”(71cm) | 11”(27,5cm) |
| 1413 | 28”(71cm) | 11”(27.5cm) |
| 1414 | 28”(71cm) | 11(27.5cm) |
| 1415 | 11”(28cm) | 10”(25) |

**Table – Conduit Entry Location Dimensions**

# Electrical Specifications

**Important –** Qualified and licensed electricians must perform all electrical hookups in accordance with the National Electric Code. The following specifications must be followed in order to ensure proper performance & safety.

⚠ **WARNING:** Starting an incorrectly wired hot tub could cause severe damage to the mechanical equipment or even bodily harm. Have your licensed electrician verify GFCI (or RCD) wiring with the wiring diagrams prior to starting the hot tub or call the technical support line at 727.573.9611.

⚠ **Caution:** Failure to abide by specifications listed may result in damage to the equipment and will void the warranty.

All hot tubs must be wired with the appropriately sized wiring. Failure to do so will cause equipment damage and will not be covered under your warranty.

All hot tubs must be over current protected with a built-in GFCI (or RCD) in the service panel.

| Model | Volts (V) | Freq. (Hz) | Rating (A) | GFCI (A) | Wire size from GFCI to Main Panel*† | Equipment Pack |
|---|---|---|---|---|---|---|
| 1411FH, 1412FH, 1413FH, 1414FH | 240 | 60 | 48 | 60 | 6-3 plus ground (up to 130')<br>4-3 plus ground (up to 230')<br>2-3 plus ground (up to 360') | BP501X, TP600CE SPA TOUCH |
| 1415FH | 240 | 60 | 40 | 50 | 6-3 plus ground (up to 130')<br>4-3 plus ground (up to 230')<br>2-3 plus ground (up to 360') | BP501X, TP600CE SPA TOUCH |

**Table – Balboa domestic equipment, wire size chart**

| Model | Volts (V) | Rating (A) | RCD (A) | Wire size from RCD to Main Panel‡§ | Equipment Pack |
|---|---|---|---|---|---|
| 1411FH-1415FH | 220-240 | 1x32<br>2x16<br>3x16 | 1x40<br>2x20<br>3x20 | 3 x 4 $mm^2$<br>5 x 2.5 $mm^2$<br>5 x 2.5 $mm^2$ | BP6013X, TP600CE SPA TOUCH |

**Table – Balboa export equipment, wire size chart**

* Wire size may need to be reduced at GFCI to fit into the breaker
† Solid copper
‡ Wire size may need to be reduced at GFCI to fit into the breaker
§ Solid copper

⚠ **WARNING:** Disconnect electrical power before servicing. Before obtaining access to terminals, all supply circuits must be disconnected.

⚠ **WARNING:** Test the GFCI (or RCD) before each use.

Our hot tubs are certified by Intertek Testing, SNAa Ltd. Ontario, Canada to CSA-C22.2 No. 218.1-M89 and ANSI/UL 1563 standards.

SELF CONTAINED HOT TUB

Compliance to Basic Standards
EN60335-1:2002/ALL:2004
EN60335-2:2000(2 Edition)
EN55014-1+A1:1997 & Title 47
EN55014-2:1997
CFR Part 15 Subpart B

Report : 3177188ATL-001C

Parts with extra low voltage not exceeding 12v must be inaccessible to a person in the hot tub. Earthed appliances must be permanently connected to fixed wiring. Parts incorporating electrical components, except remote control devices, must be located or fixed so that they cannot fall into the hot tub.

Means for disconnection must be used in fixed wiring in accordance with wiring rules.

**Important –** To allow the 240V GFCI to function properly, connect the white Neutral wire from the hot tub to the Neutral terminal on the GFCI breaker, not the Neutral bus in the GFCI breaker box. An improperly connected Neutral causes the GFCI breaker to trip.

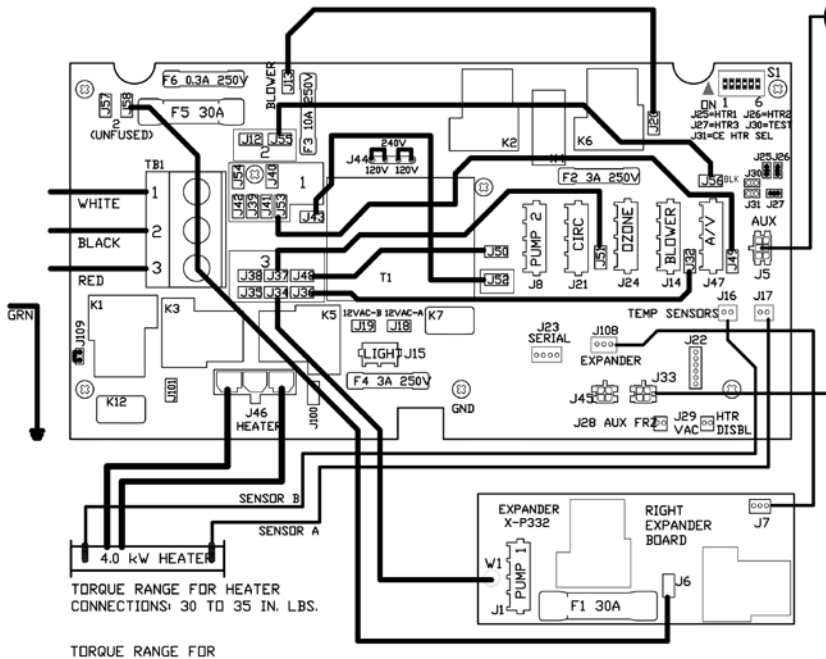
At Premium Leisure web side you can find all technical information for spa equipment: controls, panels including wiring diagrams, user guides, procedures.

Because each spa can be equipped with different type of spa control, side panel(domestic, export) be sure you referenced to correct documentation.

Type of spa control, panel your spa equipped you can find on front of equipment pack.

# PBP501X PN 56713-01

04-08-15




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.

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. #6 AWG MIN. WIRE= 90°

| OFF POSITION | S1 SWITCH # | ON POSITION |
|---|---|---|
| TEST MODE OFF | 1 | TEST MODE ON |
| DON'T ADD 1 HS PUMP W/HTR | 2 | ADD 1 HS PUMP WITH HEAT |
| DON'T ADD 2 HS PUMPS W/HTR | 3 | ADD 2 HS PUMPS WITH HEAT |
| 1 MIN HTR COOLDOWN (ELEC) | 4 | 5 MIN HTR COOLDOWN (GAS) |
| SPECIAL AMPERAGE RULE OFF | 5 | SPECIAL AMPERAGE RULE ON |
| STORE SETTINGS* | 6 | MEMORY RESET* |

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

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

INSTEAD OF SETUP #6, THIS SYSTEM IS CONFIGURED IN SETUP #:

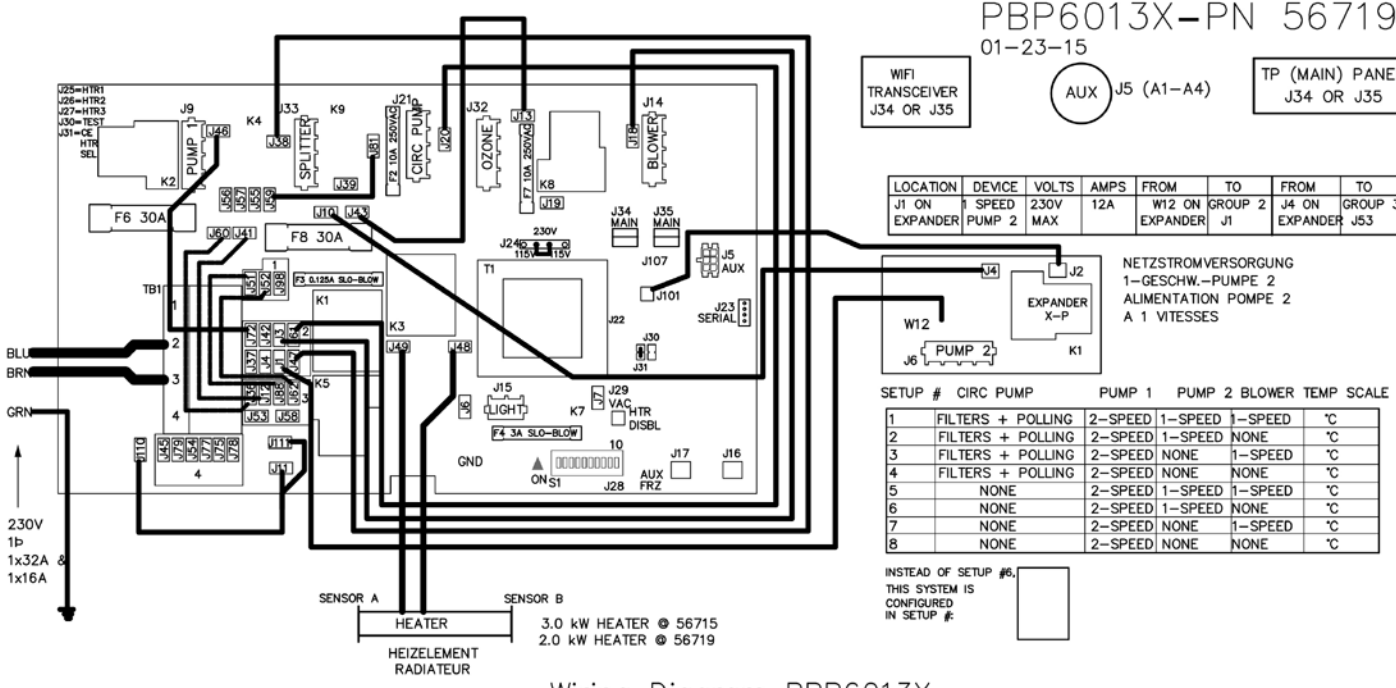
| LOCATION | DEVICE | VOLTS | AMPS | FROM | TO | FROM | TO |
|---|---|---|---|---|---|---|---|
| J1 ON RT EXPANDER | 2 SPD PUMP 1 | 240V | 12A MAX | W1 ON EXPANDER | GROUP 3 J34 | J6 ON EXPANDER | J58 |

| LOCATION | DEVICE | VOLTS | AMPS | FROM | TO |
|---|---|---|---|---|---|
| J8 | 1-SP PUMP | 2 240V | 12A MAX | J50 | J48-AREA 3 |
| J14 | BLOWER | 240V | 4A MAX | J32 | J36-AREA 3 |
| J15 | SPA LIGHT | 10V | 1A | | |
| J21 | CIRC | 240V | 2A MAX | | |
| J24 | OZONE | 240V | 1A | | |
| | CIRC AND OZ | LINE 1 CONNECTION | | J51 | J37-AREA 3 |
| J47 | TV / AV | 120V | 2A | J49 | J53-AREA 1 |
| J46 | HEATER | 240V | 4.0 kW | | |

Wiring Diagram PBP501X PN 56713-01

# PBP6013X-PN 56715
# PBP6013X-PN 56719

01-23-15




| LOCATION | DEVICE | VOLTS | AMPS | FROM | TO | FROM | TO |
|---|---|---|---|---|---|---|---|
| J1 ON EXPANDER | 1 SPEED PUMP 2 | 230V MAX | 12A | W12 ON EXPANDER | GROUP 2 J1 | J4 ON EXPANDER | GROUP 3 J53 |

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

INSTEAD OF SETUP #6, THIS SYSTEM IS CONFIGURED IN SETUP #:

Wiring Diagram PBP6013X



PART A

# Settings

SINGLE SERVICE 230V 1Þ / 1x32A & 1X16A, TWO-SERVICE 230V 2Þ / 2x16A, THREE-SERVICE 230V 3Þ / 3x16A

| LOCATION | DEVICE | MAX AMPS |
|---|---|---|
| J9 | NETZSTROMVERSORGUNG 2-GESCHW.-PUMPE 1 ALIMENTATION POMPE 1 A 2 VITESSES 2-SPEED PUMP 1 | 11A MAX |
| J14 | 1-SPEED BLOWER VENTILATEUR SPRUDELGEBLASE | 4A MAX |
| | BLOWER LINE 1 CONNECTION J19 to J43 | |
| J15 | 10V BELEUCHTUNG ECLAIRAGE BAIN HYDRO SPA LIGHT | 1A MAX |
| J21 | KREISLAUF PUMPE POMPE DE CIRCULATION CIRC PUMP | 1A MAX |
| J32 | OZONGENERATOR GENERATOROZONE OZONE GENERATOR | 0.5A MAX |
| | CIRC AND OZONE LINE 1 CONNECTION J81 to J59 | |
| J33 | AV / BROMINE | 4A MAX |
| J5 | AUX PANEL(S) - AX10, AX20, AX30, AX40 | |

230V 1Þ 1x32A

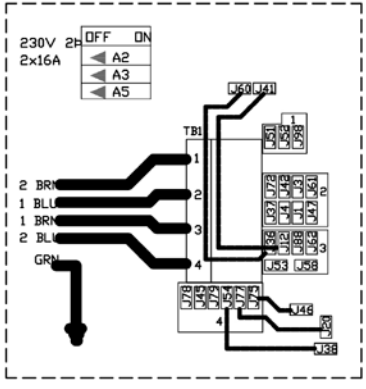
| SWITCHBANK S1 OFF | | SWITCHBANK S1 ON |
|---|---|---|
| TEST MODE OFF | A1 | TEST MODE ON |
| DON'T ADD 1 HS PUMP W/HTR | A2 | ADD 1 HS PUMP WITH HEAT |
| DON'T ADD 2 HS PUMPS W/HTR | A3 | ADD 2 HS PUMPS WITH HEAT |
| DON'T ADD 4 HS PUMPS W/HTR | A4 | ADD 4 HS PUMPS WITH HEAT |
| SPECIAL AMPERAGE 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 |

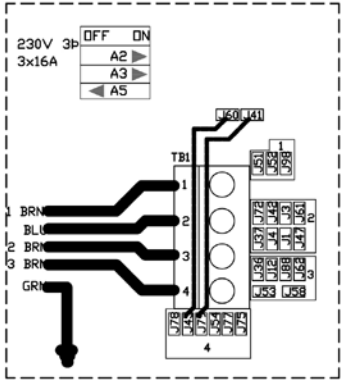
*SWITCH # 6 SHOULD BE SET TO OFF UPON FINAL INSTALLATION.

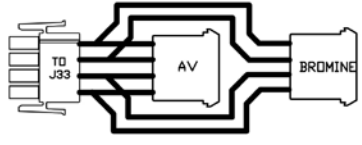
230V 1Þ 1x16A

| 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.




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)

**Important –** Read these step-by-step startup procedures before starting your hot tub. Failure to follow any of these steps listed may result in damage to the equipment and may void your warranty.

**Note:** If you are unsure of any of the above startup procedures, please call our customer care center at 727.573.9611. For best results, read each step in its entirety before proceeding.

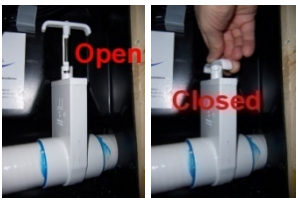
⚠ **Caution:** Running the hot tub pump dry (without water running through it) can cause IMMEDIATE damage and will void the warranty! Be sure that the hot tub is installed properly in accordance with the instructions in this manual.

Refer to the following picture for an explanation of your hot tub's controls, components, and technical terms. Note that not all models have all features and components.

**BEFORE ADDING WATER**

Before adding water, go through these simple steps now to prevent common issues when setting up your hot tub for the first time. Verify that the following have all been rechecked.

1. Turn off all power to the hot tub at the main breaker panel.
2. Open the side panels to access the internal components.
3. Check that all slide valves are opened (T-handles pulled out) to the heater and all pumps.
4. Check that there are no obvious signs of loose wires or broken pipes.




**Valve Open/Closed**

5. Check that the two heater unions are hand tight.

⚠ **Caution:** Do not use a wrench. Over-tightening may cause damage to unions and gaskets, which will not be covered under warranty.


**Heater Unions Tight**

6. Check that the unions on all pumps are tight.

7. Clean out any foreign debris from within the service access area or inside of the hot tub itself.
8. With the drain open and filters removed, thoroughly rinse out the hot tub with warm water until the drained water runs clear. Run water through the filtration canister and jet lines to remove any incidental dust, dirt, and debris that may have accumulated during shipment or installation. Drain all water completely.
9. Make sure that the hot tub drain valve is closed and the cap is on tight .
10. Install the filter(s) in the filtration canister.
11. Check that all of the hot tub jets are open (turned full counter-clockwise).
12. Now is the best time to clean and polish the surfaces of your hot tub if you wish .

**FILLING YOUR HOT TUB**

Now it's time to fill your hot tub with water. Do not turn on the electricity yet until the hot tub is completely filled. To properly fill your hot tub:

1. Unlock and remove Filter Ring if equipped
2. Remove Filtration Canister.
3. Make sure that the filters (in the filtration canister) are gently screwed into place. Turn them clockwise until they stop being careful not to over-tighten them (this avoids cracking the filter).
4. Connect a standard garden hose to a faucet with regular cold tap water (not softened water or hot water).

**Filtration Canister**

⚠ **Caution:** The water from your hot water tank should not be used to fill the hot tub.

5. Put the pre-filter (if equipped**) on the other end of the hose, point the pre-filter into a suitable drain, turn on the water, and allow any sediment to be flushed down the drain. Once the water stream runs

** Pre-filters are available by calling 727.573.9611

clear, turn off the hose.

6. Put the pre-filter (if equipped) into the filtration canister and turn on the hose.
7. **Fill slowly**. If too much water pressure is used, foaming water can force air into the pipes and cause startup problems.

   **Important:** To assure that the pump is properly primed, **fill the hot tub through the filter area only**.

8. Fill the hot tub until the water level is about 1" above all jets (or about ½" below the pillow). Do not over fill.

   **Note**: Every person entering a hot tub displaces a given volume of water, so adjust water level to the number of people regularly using the hot tub.

Turn off the hose and check again for any small leaks.

### OPERATIONAL CHECKS

See details of operating checking for your spa control panel (Spa Touch or TP600CE) on Premium Leisure website.

## Water Balancing

**Note:** Perform water balancing weekly and whenever your water is changed (or when your hot tub is first filled). Once your hot tub reaches 95ºF, add the necessary chemicals to stabilize your water chemistry (pH, hardness, and total alkalinity, etc.). Then add the start-up chemicals* the water. Turn Pump 1 on high speed immediately to distribute it evenly.

Note: Test strips and water balancing chemicals are available by calling 800.749.8003 or visiting www.hottubparts.com

| Test | Range |
|---|---|
| Total Alkalinity | 80-180 ppm |
| pH | 7.2-7.8 |
| Calcium Hardness | 150-400 ppm |
| Bromine | 1.0-2.0 ppm |

**Recommended Ranges for Balanced Water**

# For All Spas equipped with PBP501, PBP6013 controllers and TP600 (CE) panel.

US/CANADA. Parts#: PBP501-P.N.56713, TP600CE-P.N.50015-05

EXPORT. Parts#: PBP6013-P.N.56719 (2kw heater), P.N.56715(3kw heater),TP600CE-P.N.50015-05

## Menus and Panel Operation

## Panel Navigation

Navigating the entire menu structure is done with 2 or 3 buttons on the control panel.


TP600 panel has separate **WARM**(Up) and **COOL**(Down) buttons, while others have a single **Temperature** button. In the navigation diagrams "Temperature" buttons are indicated by a single button icon. Panels that have two Temperature buttons (Warm and Cool) can use both of them to simplify navigation and programming where a single Temperature icon is shown.

The **LIGHT** Button is also used to choose the various menus and navigate each section.

Typical use of the Temperature button(s) allows changing the Set Temperature while the numbers are flashing in the LCD. Pressing the **LIGHT** button while the numbers are flashing will enter the menus.

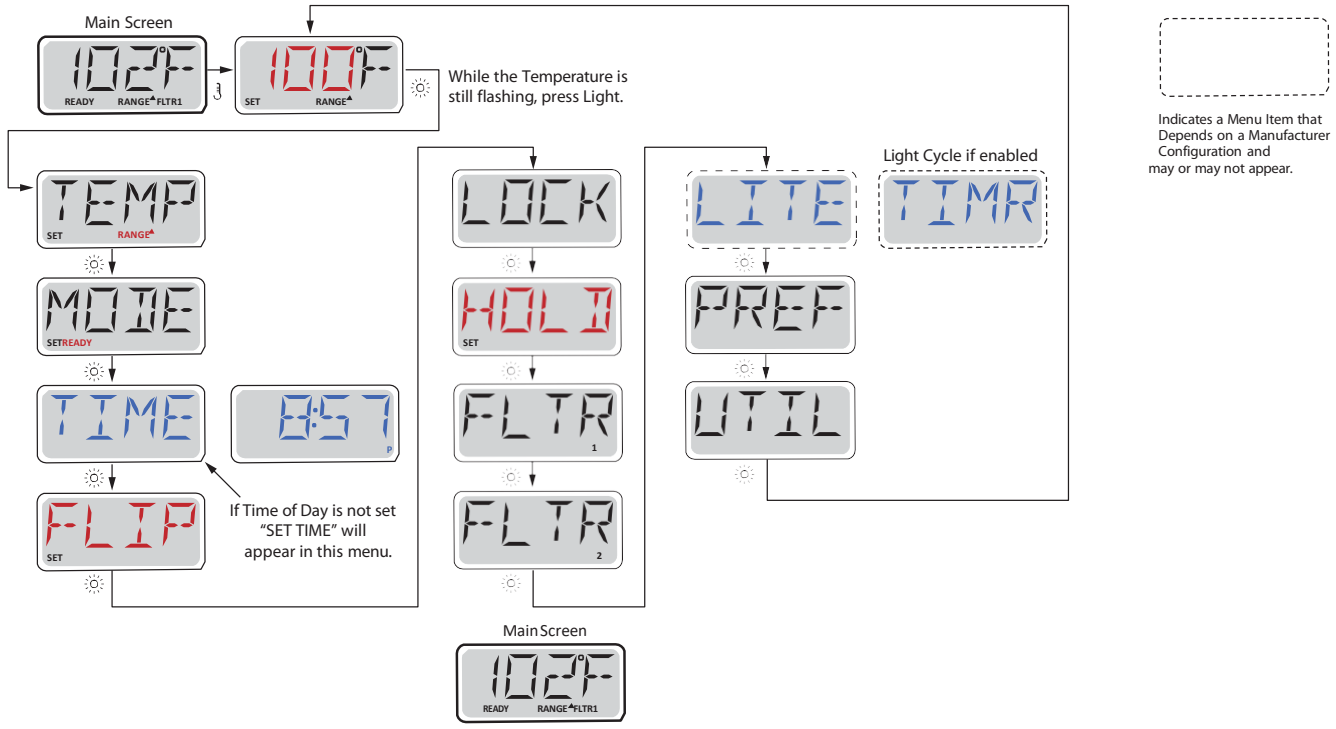
The menus can be exited with certain button presses. Simply waiting for several seconds will return the panel operation to normal.

**Power-up Screens**

Each time the System powers up, a series of numbers is displayed.
After the startup sequence of numbers, the system will enter Priming Mode.

**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 that keeps the last change to a menu item.
- ***** Waiting time (depends on menu item) that reverts to original setting and ignores any change to that menu item.




Waiting Several Seconds in the Main Menu will allow the display to revert to the Main Screen.
Most changes are not saved unless Light is pressed.
Refer to Key above.

# Operational Checking Your Spa

## Energizing Hot Tub equipment

Before applying voltage to power up your spa, it is very important that you understand the sequence of events that occur when system is activated in order that pumps can be primed efficiently and damage can be avoided.

Turn on the GFCI breaker and test the spa GFCI breaker (Ground-Fault Circuit Interrupter), by pushing the small "Test" button. This should automatically trip the spa's GFCI. If this breaker does not trip, immediately call your electrician. Do not use your spa! Only if pushing "Test" button trips GFCI should you reset this breaker and proceed next step.

After turning the power on at the main power panel, the top-side panel display will go through specific sequences. These sequences are normal and display a variety of information regarding the configuration of the hot tub control.

## Priming Mode – M019*

This mode will last for 4-5 minutes or you can manually exit the priming mode pressing Temperature button after the pump(s) have primed.


Regardless of whether the priming mode ends automatically or you manually exit the priming mode, the system will automatically return to normal heating and filtering at the end of the priming mode. During the priming mode, the heater is disabled to allow the priming process to be completed without the possibility of energizing the heater under low-flow or no-flow conditions. Nothing comes on automatically, but the pump(s) can be energized by pushing the "Jets1","Jets2" buttons(if equipped). If the spa equipped with a Blower, pushing "Aux" button will activate the Blower.
If the spa has a Circ Pump, it can be activated by pressing the "Light" button during Priming Mode only.

## Priming the Pumps

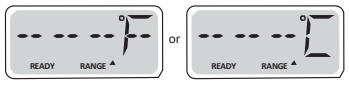
As soon as the above display appears on the panel, push the "Jets1" button once to start Pump 1 in low-speed and then again to switch to high-speed. Also, push the Pump 2 or "Jets2" button, if you have a 2nd pump, to turn it on. The pumps will now be running in high-speed to facilitate priming. If the pumps have not primed after 2 minutes, and water is not flowing from the jets in the spa, do not allow the pumps to continue to run. Turn off the pumps and repeat the process. Note: Turning the power off and back on again will initiate a new pump priming session. Sometimes momentarily turning the pump off and on will help it to prime. Do not do this more than 5 times. If the pump(s) will not prime, shut off the power to the spa and call for service.

Important: A pump should not be allowed to run without priming for more than 2 minutes. Under NO circumstances should a pump be allowed to run without priming beyond the end of the 4-5 minute priming mode. Doing so may cause damage to the pump and cause the system to energize the heater and go into an overheat condition.

## Exiting Priming Mode

You can manually exit Priming Mode any time by pressing a "Temp" button ("Up" or "Down"). If you do not manually exit the priming mode as described above, the priming mode will be automatically terminated after 4-5 minutes. Be sure that the pump(s) have been primed by this time.

Once the system has exited Priming Mode, the top-side panel will momentarily display the set temperature but the display will not show the temperature yet, as shown below. This is because the system requires approximately 1 minute of water flowing through the heater to determine the water temperature and display it.




*M019 is a Message Code.

# Operational Checking Your Spa

## Pumps

Press the “Jets1” button once to turn pump 1 on or off, and to shift between low- and high-speeds.

If left running, the pump1 will turn off after a time-out period. The pump1 low-speed will time out after 30 minutes. The high-speed will time out after 15 minutes. Press the “Jets2” button once to turn pump 2 on or off.
If left running, the pump2 will turn off after a time-out period. The pump 2 will time out after 15 minutes.

On non-circ systems, the low-speed of pump 1 runs when the blower or any other pump is on. If the spa is in Ready Mode, Pump 1 low may also activate for at least 1 minute every 30 minutes to detect the spa temperature (polling) and then to heat to the set temperature if needed. When the low-speed turns on automatically, it cannot be deactivated from the top side panel, however the high speed may be started.

**Circulation Pump**

If the system is equipped with a circ pump, it will be configured to work as programmable circulation pump.

A programmable circ pump will come on when the system is checking temperature (polling), during filter cycles, during freeze conditions, or when another pump is on.

## Filtration and Ozone

On non-circ systems, Pump 1 low and the ozone generator will run during filtration. On circ systems, the ozone will run with the circ pump.

The system is factory-programmed with two filter cycles that will run twice per day (start 8:00AM and 8:00PM), duration is 2hours. The filter time and duration are programmable. A second filter cycle can be disabled as needed.

At the start of each filter cycle, the blower (if there is one) and(or) Pump 2 (if there is one) will run briefly to purge its plumb- ing to maintain good water quality. Blower for 30 seconds, Pump 2 for 60 seconds.

## Freeze Protection

If the temperature sensors within the heater detect a low enough temperature (44°F/7°C), then the pump(s) and the blower automatically activate to provide freeze protection. The pump(s) and blower will run either continuously or periodically depending on conditions.

In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions that may not be sensed by the standard sensors. Auxiliary freeze sensor protection acts similarly except with the temperature thresholds determined by the switch. See your dealer for details.

## Clean-up Cycle (optional)

When any pump or blower is turned on by a button press, a clean-up cycle begins 30 minutes after the pump or blower is turned off or times out. The pump and the ozone generator will run for 30 minutes or more, depending on the system.

## Adjusting the Set Temperature

When using a panel with Warm(Up) and Cool(Down) buttons (temperature buttons), pressing Up or Down will cause the temperature to flash. Pressing a temperature button again will adjust the set temperature in the direction indicated on the button. When the LCD stops flashing, the spa will heat to the new set temperature when required.

If the panel has a single temperature button, pressing the button will cause the temperature to flash. Pressing the button again will cause the temperature to change in one direction (e.g. UP). After allowing the display to stop flashing, pressing the Temperature Button will cause the temperature to flash and the next press will change the temperature in the opposite direction (e.g. DOWN).

## Press-and-Hold

If a Temperature button is pressed and held when the temperature is flashing, the temperature will continue to change until the button is released. If only one temperature button is available and the limit of the Temperature Range is reached when the button is being held, the progression will reverse direction.

## Dual Temperature Ranges

This system incorporates two temperature range settings with independent set temperatures. The High Range designated in the display by an “up” arrow, and the Low Range designated in the display by a “down” arrow.

These ranges can be used for various reasons, with a common use being a “ready to use” setting vs. a “vacation” setting. The Ranges are chosen using the menu structure below. Each range maintains its own set temperature as programmed by the user. This way, when a range is chosen, the spa will heat to the set temperature associated with that range.

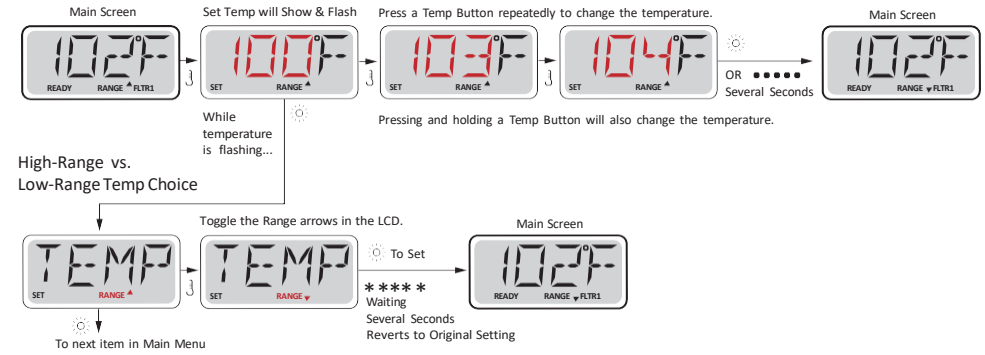
For example:

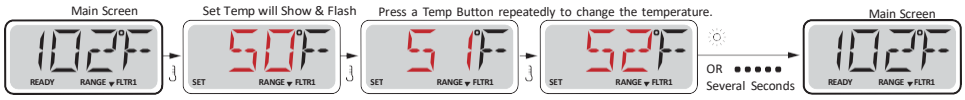
*High Range might be set between 80°F and 104°F.*

*Low Range might be set between 50°F and 99°F.*

*Hi Range Default Temp.100°F, Lo Range Default Temp.70°F*

*Freeze Protection is active in either range. Freeze Threshold 44°F (7°C).Freeze Type is rotating with pumps at lowest speed. See Ready and Rest modes for additional heating control information.*



## Mode-Ready and Rest

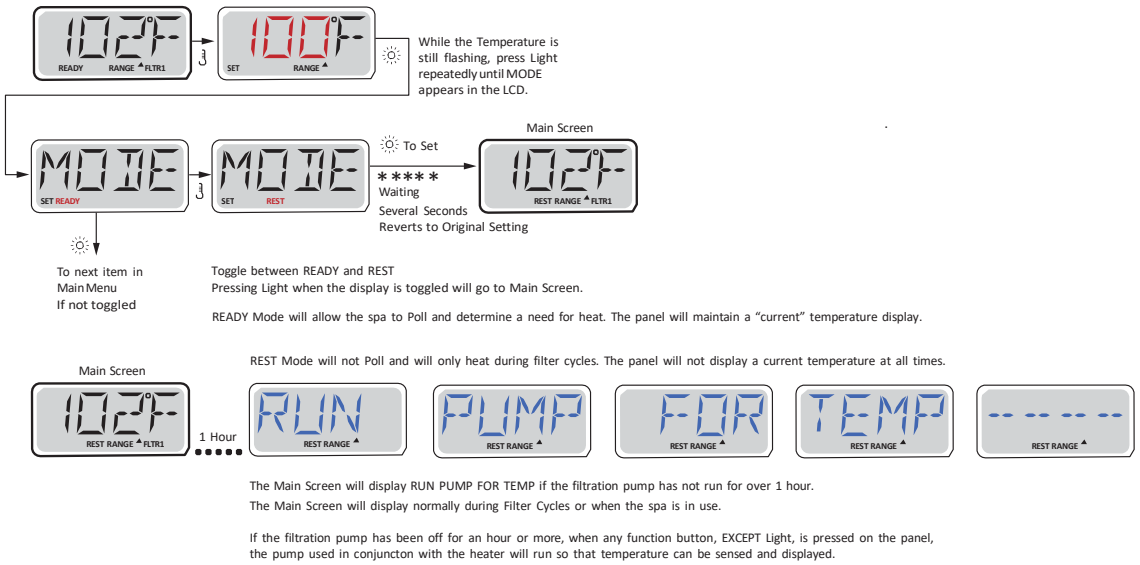
In order for the spa to heat, a pump needs to circulate water through the heater. The pump that performs this function is known as the “heater pump.” The heater pump can be either a 2-Speed Pump 1 or a circulation pump.

If the heater pump is a 2-Speed Pump 1, READY Mode will circulate water every 1/2 hour, using Pump 1 Low, in order to maintain a constant water temperature, heat as needed, and refresh the temperature display. This is known as “polling.”

REST Mode will only allow heating during programmed filter cycles. Since polling does not occur, the temperature display may not show a current temperature until the heater pump has been running for a minute or two.

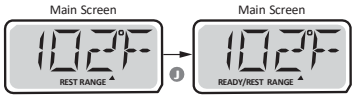
If the spa equipped with programmable circ pump the circ pump in READY Mode will circulate water every 1/2 hour to maintain a constant water temperature, heat as needed, and refresh the temperature display.

REST Mode will only allow heating during programmed filter cycles. Since polling does not occur, the temperature display may not show a current temperature until the heater pump has been running for a minute or two.



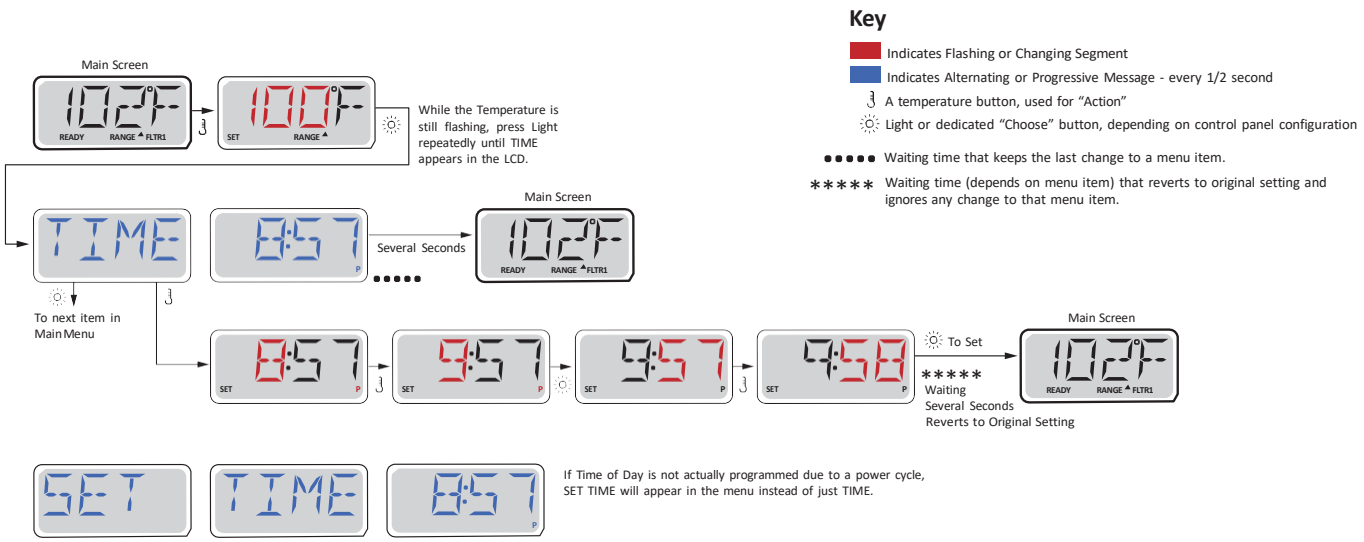

## Ready-in-Rest Mode

READY/REST appears in the display if the spa is in Rest Mode and Jet 1 is pressed. It is assumed that the spa is being used and will heat to set temperature. While Pump 1 High can be turned on and off, Pump 1 Low will run until set temperature is reached, or 1 hour has passed. After 1 hour, the System will revert to Rest Mode. This mode can also be reset by entering the Mode Menu and changing the Mode.




## Show and Set Time-of-Day

Setting the time-of-day can be important for determining filtration times and other background features. When in the TIME menu, SET TIME will flash on the display if no time-of-day is set in the memory.
12 or 24-hour time display can be set under the PREF menu. 12hrs is default time format. Can be changed at any time (see Preference Menu).

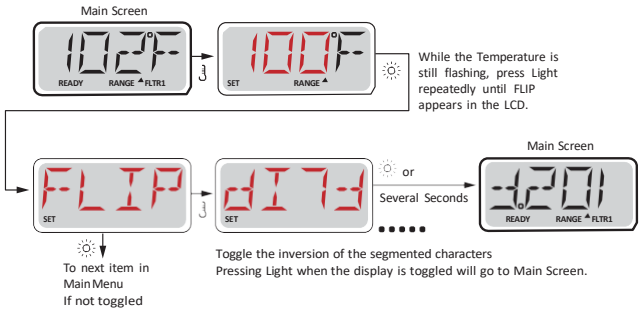



If power is interrupted to the system, Time-of-Day is not stored. The system will still operate and all other user settings will be stored. If filter cycles are required to run at a particular time of day, resetting the clock will return the filter times to the actual programmed periods.

When the system starts up, it defaults to 12:00 Noon, so another way to get filter times back to normal is to start up the spa at noon on any given day. SET TIME will still flash in the TIME Menu until the time is actually set, but since the spa started at noon, the filter cycles will run as programmed.

## Flip (Invert Display)

Inverts Display.



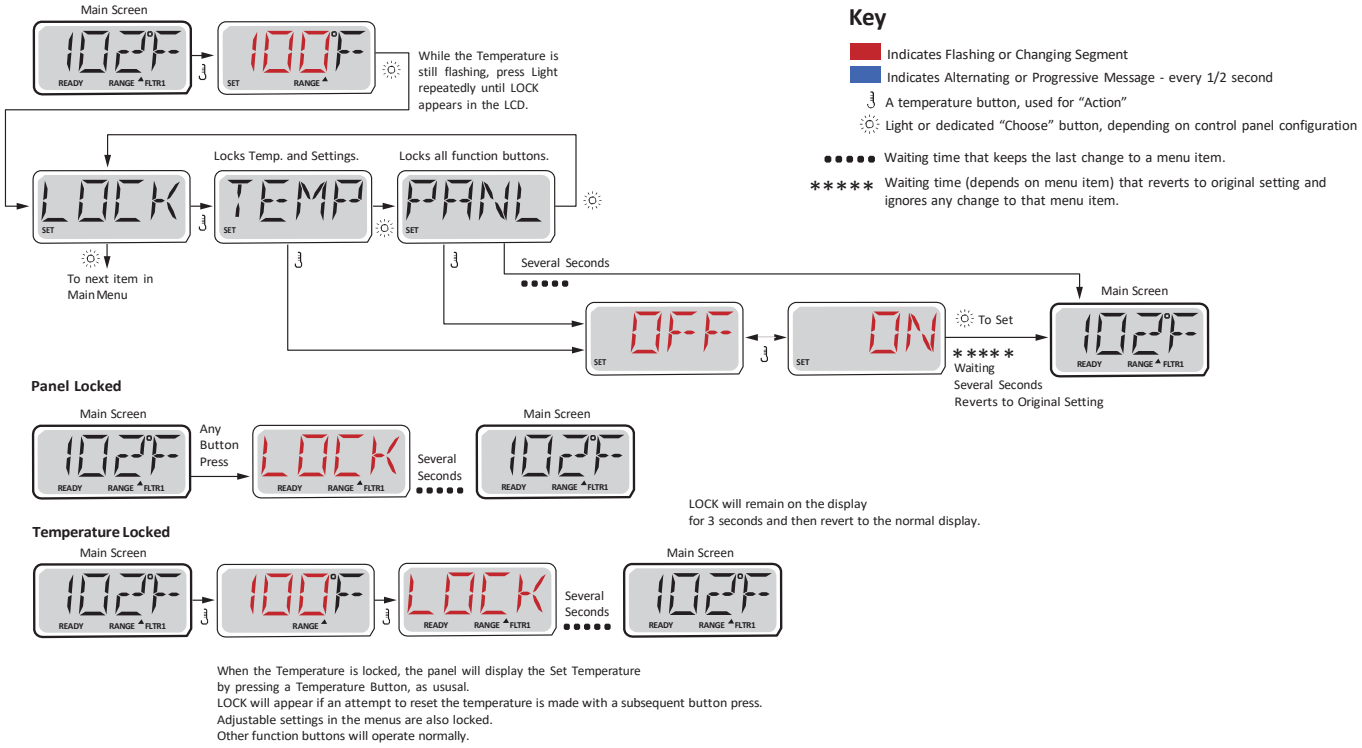
# Restricting Operation

The control can be restricted to prevent unwanted use or temperature adjustments.

Locking the panel prevents the controller from being used, but all automatic functions are still active.

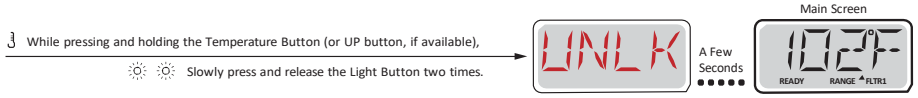
Locking the Temperature allows Jets and other features to be used, but the Set Temperature and other programmed settings cannot be adjusted.

Temperature Lock allows access to a reduced selection of menu items, which include Set Temperature, FLIP, LOCK, UTIL, INFO and FALT LOG.




## Unlocking

This Unlock sequence may be used from any screen that may be displayed on a restricted panel.




Your panel has both a Warm(UP) and a Cool(Down) buttons, the ONLY button that will work in the Unlock Sequence is the Warm(UP) button.

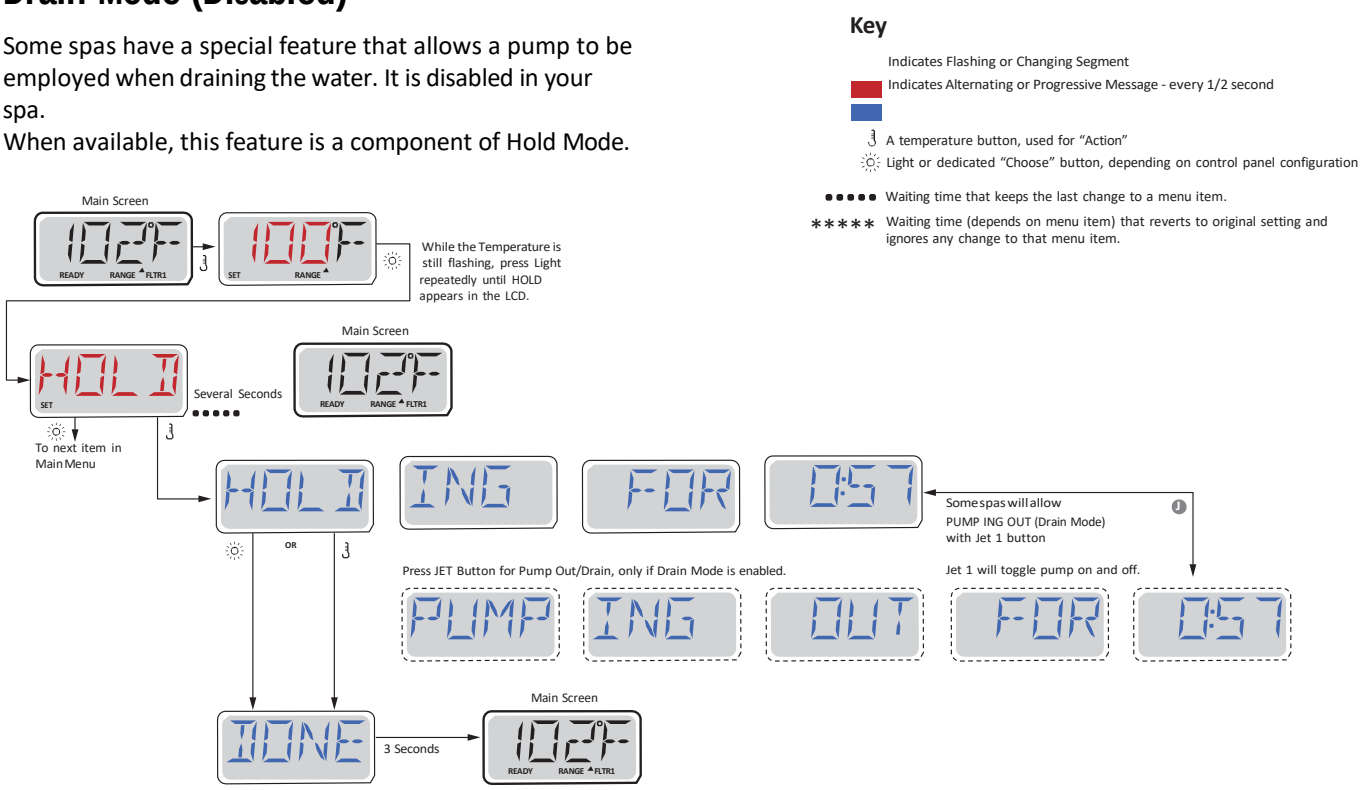
# Hold (Standby)

## Hold Mode – M037

Hold Mode is used to disable the pumps during service functions like cleaning or replacing the filter. Hold Mode will last for 1 hour unless the mode is exited manually.

## Drain Mode (Disabled)

Some spas have a special feature that allows a pump to be employed when draining the water. It is disabled in your spa.
When available, this feature is a component of Hold Mode.

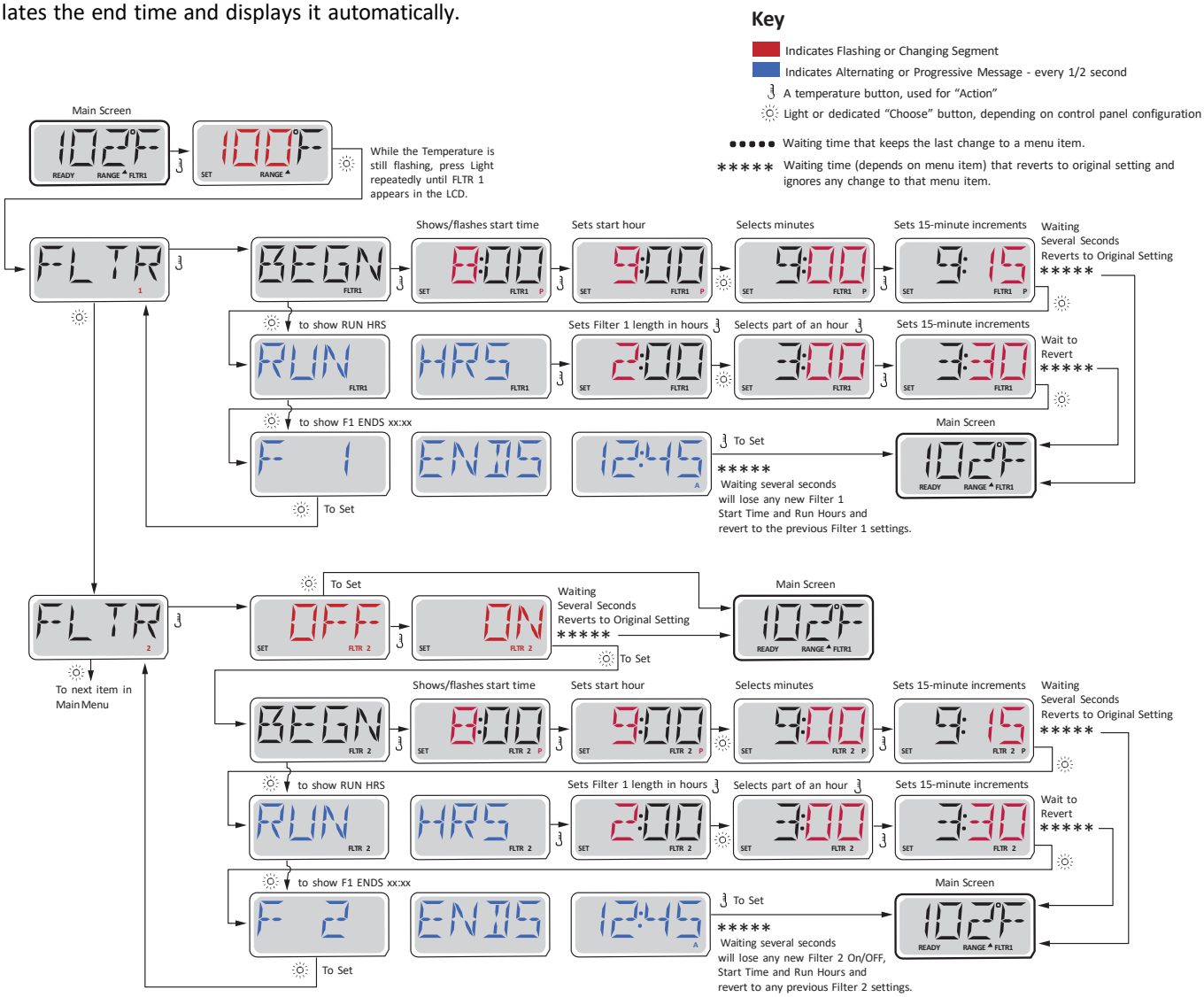



M037 is a Message Code.

# Adjusting Filtration

## Main Filtration

Filter cycles are set using a start time and a duration. Start time is indicated by an “A” or “P” in the bottom right corner of the display. Duration has no “A” or “P” indication. Each setting can be adjusted in 15-minute increments. The panel calculates the end time and displays it automatically.




## Filter Cycle 2 - Optional Filtration

In your spa Filter Cycle 2 is ON by default.

It is possible to overlap Filter Cycle 1 and Filter Cycle 2, which will shorten overall filtration by the overlap amount.

## Purge Cycles

In order to maintain sanitary conditions, secondary Pump and/or a Blower will purge water from their respective plumbing by running briefly (60 second for pump and 30 seconds for blower) at the beginning of each filter cycle.

If Filter Cycle 1 is set for 24 hours, enabling Filter Cycle 2 will initiate a purge when Filter Cycle 2 is programmed to begin.

# Preferences

## F / C (Temp Display)

Change the temperature between Fahrenheit and Celsius.

## 12 / 24 (Time Display)

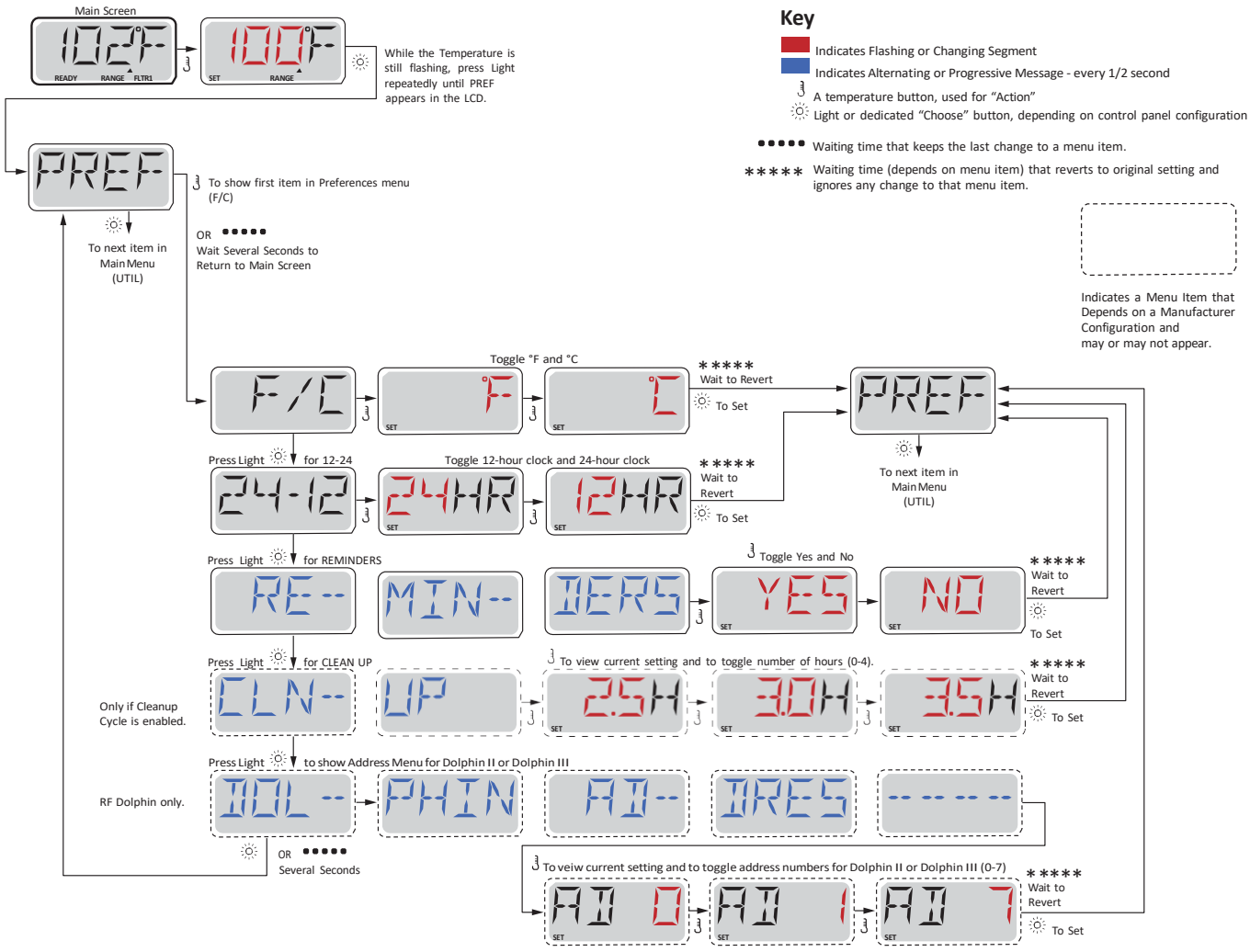
Change the clock between 12 hr and 24 hr display.

## RE-MIN-DERS (Reminders)

Turn the reminder messages (like “Clean Filter”) On or Off.

## CLN-UP (Cleanup)

Cleanup Cycle Duration is not always enabled, so it may not appear. When it is available, set the length of time Pump 1 will run after each use. 0-4 hours are available.
30 minutes is default setting.



# Utilities and Information

## INFO (System Information sub-menu)

The System Information Menu displays various settings and identification of the particular system. As each item in the menu is highlighted, the detail for that item is displayed at the bottom of the screen.

## SSID (Software ID)

Displays the software ID number for the System.

## MODL (System Model)

Displays the Model Number of the System.

## SETP (Current Setup)

Displays the currently selected Configuration Setup Number.

## SIG (Configuration Signature)

Displays the checksum for the system configuration file.

## Heater Voltage (Feature not used on CE rated systems.)

Displays the operating voltage configured for the heater.

## Heater Wattage as Configured in Software (CE Systems Only.)

Displays a heater kilowatt rating as programmed into the control system software (1-3 or 3-6).

## H _ (Heater Type)

Displays a heater type ID number.

## SW _ (Dip Switch Settings)

Displays a number that represents the DIP switch positions of S1 Switch on the main circuit board.

## PANL (Panel Version)

Displays a number of the software in the topside control panel.

## Utilities

In addition to INFO, The Utilities Menu contains the following:

## GFCI (GFCI Test)

## (Feature not available on CE rated systems.)

GFCI Test is not always enabled, so it may not appear. This screen allows the GFCI to be tested manually from the panel and can be used to reset the automatic test feature.

## A / B (A/B Sensor Temperatures)

When this is set to On, the temperature display will alternate to display temperature from Sensor A and Sensor B in the heater.

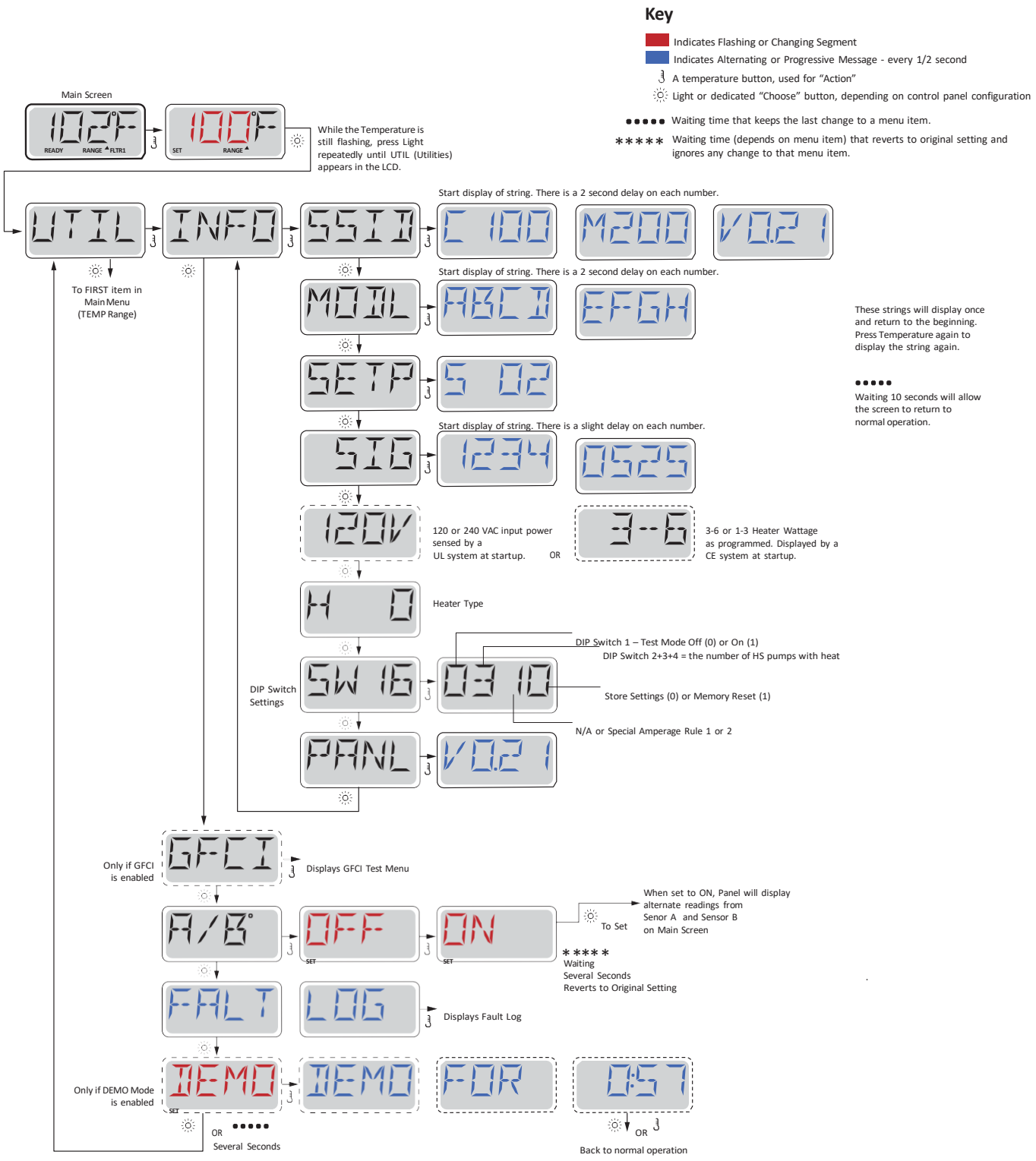
## FALT LOG (Fault Log)

The Fault Log is a record of the last 24 faults that can be reviewed by a service tech.

## DEMO (Demo Mode)/Disabled

Demo Mode is not enabled. This is designed to operate several devices in a sequence in order to demonstrate the various features of a particular hot tub.

# Utilities (INFO, GFCI, A/B, FALT)



# Utilities – GFCI Test Feature

## Not Available on CE Rated Systems.

A GFCI is an important safety device and is required equipment on a hot tub installation.

Your spa equipped with a GFCI Trip enabled and automatic GFCI Test disabled. Only for UL rated systems.

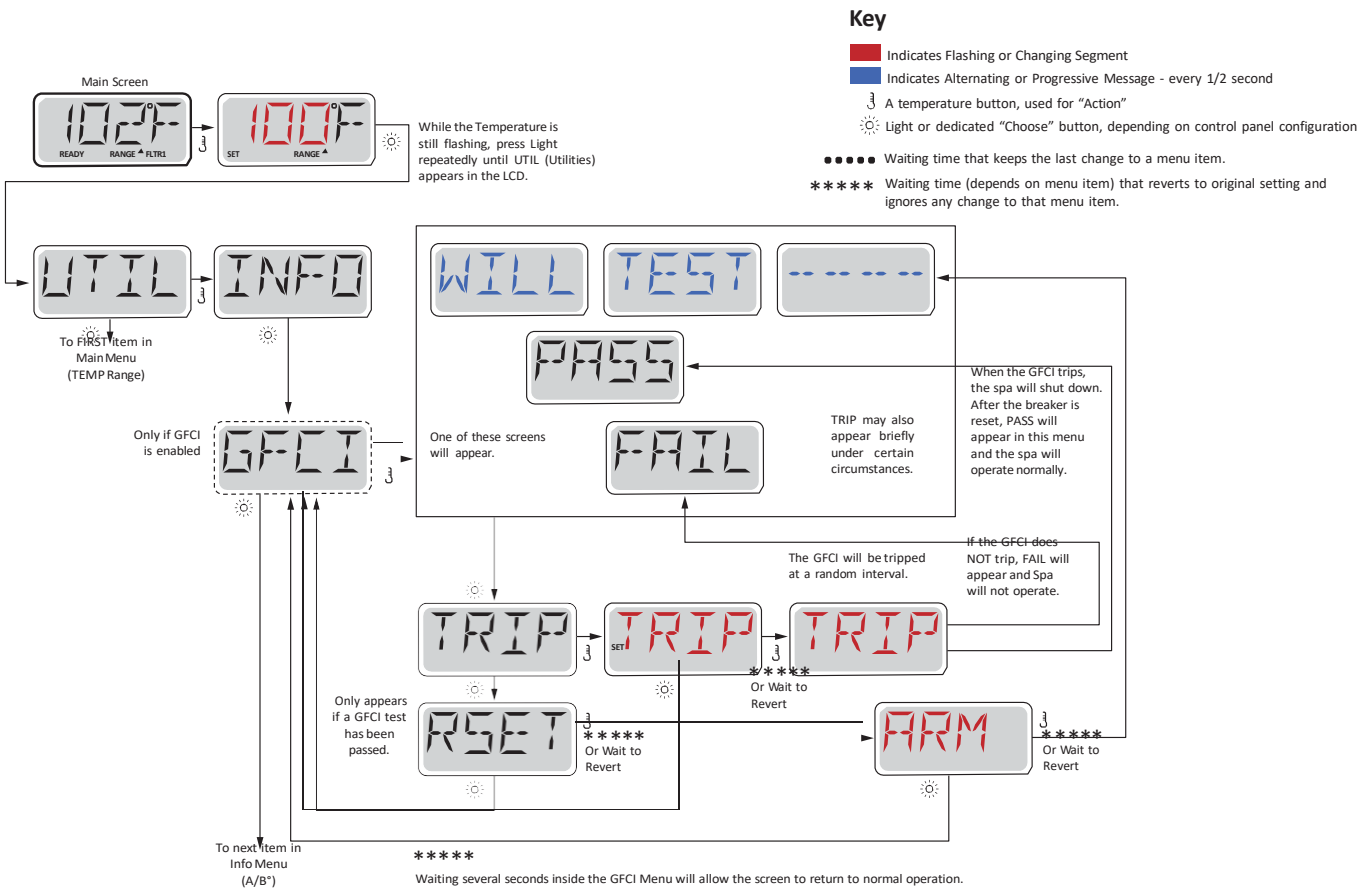
The installer can cause the GFCI Trip Test to occur by initiating it using this menu.

The GFCI should trip within several seconds and the spa should shut down. If it does not, shut down the power and manually verify that a GFCI breaker is installed and that the circuit and spa are wired correctly. Verify the function of the GFCI with its own test button. Restore power to the spa and repeat the GFCI Trip Test.

Once the GFCI is tripped by the test, reset the GFCI and the spa will operate normally from that point. You can verify a successful test by navigating to the above menu. PASS should appear after a temp button is pressed from the GFCI screen.

## Warning:

If freezing conditions exist, a GFCI should be reset immediately or spa damage could result. The end user should always trained to test and reset the GFCI on a regular basis.

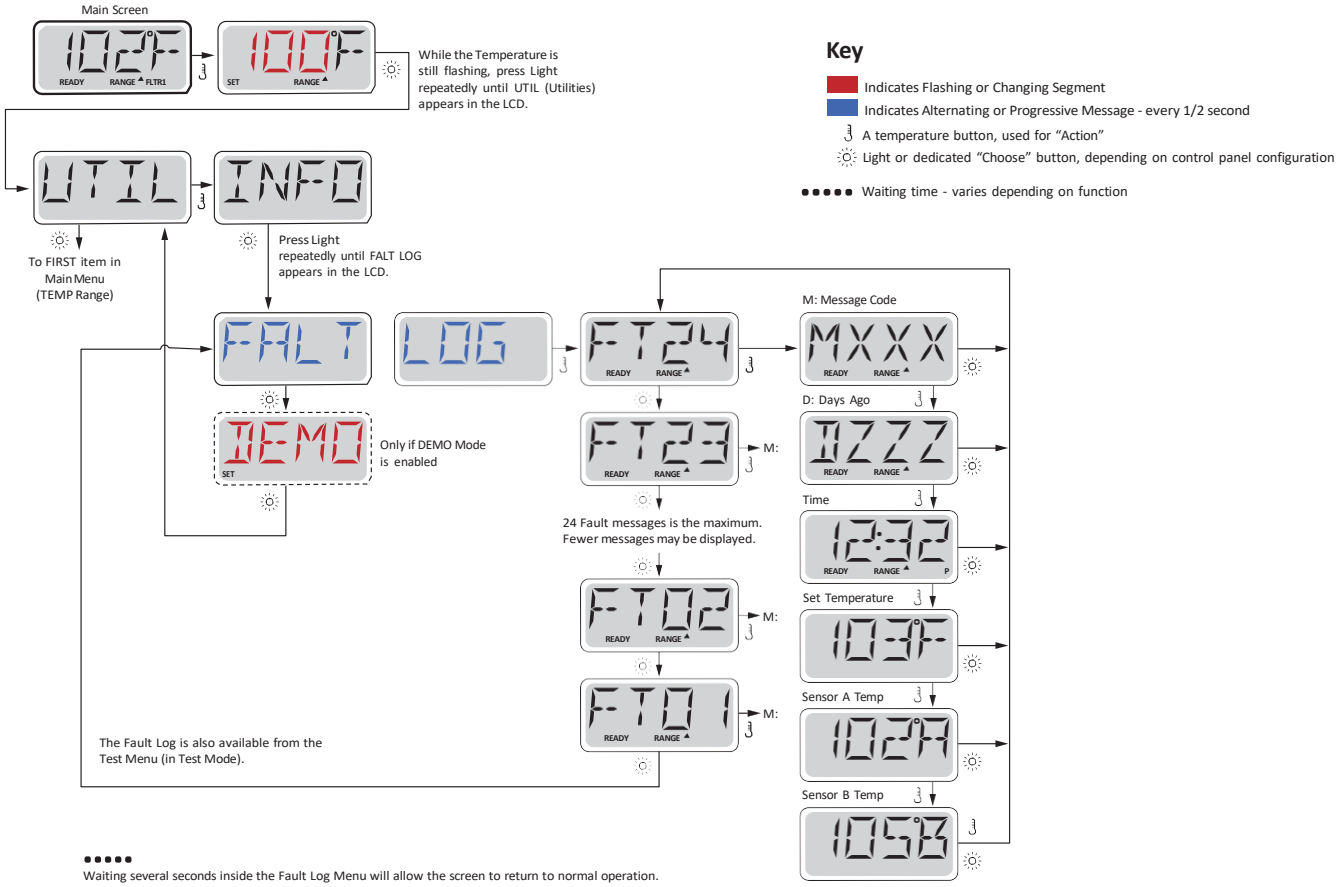


# Utilities – Fault Log

## A Little spa history can tell a lot

The Fault Log stores up to 24 events in memory and they can be reviewed under the Fault Log Menu.

Each event captures a Fault Message Code, how many days have passed since the fault, Time of the fault, Set Temperature during the fault, and Sensor A and B temperatures during the fault.



# General Messages


## Priming Mode – M019

Each time the spa is powered up, it will enter Priming Mode. The purpose of Priming Mode is to allow the user to run each pump and manually verify that the pumps are primed (air is purged) and water is flowing. This typically requires observing the output of each pump separately, and is generally not possible in normal operation. Priming Mode lasts 4 minutes, but you can exit it earlier by pressing any Temp button. The heater is not allowed to run during Priming Mode.

NOTE: If your spa has a Circ Pump, it will turn on with Jets 1 in Priming Mode. The Circ Pump will run by itself when Priming Mode is exited.

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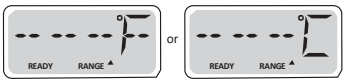



## Water Temperature is Unknown

After the pump has been running for 1 minute, the temperature will be displayed.

---


## Too Cold - Freeze Protection

A potential freeze condition has been detected, or the Aux Freeze Switch has closed, and all pumps and blower are activated. All pumps and blower are ON for at least 4 minutes after the potential freeze condition has ended, or when the aux freeze switch opens.

In some cases, pumps may turn on and off and the heater may operate during Freeze Protection.

This is an operational message, not an error indication.

---


## Water is too Hot (OHS) – M029

One of the water temp sensors has detected spa water temp 110°F (43.3°C) and spa functions are disabled. System will auto reset when the spa water temp is below 108°F (42.2°C). Check for extended pump operation or high ambient temp.

---


## Safety Trip - Pump Suction Blockage* – M033

The Safety Trip error message indicates that the vacuum switch has closed. This occurs when there has been a suction problem or a possible entrapment situation avoided. (Note: Your spa has not this feature).

# Heater-Related Messages


## Heater Flow is Reduced (HFL) – M016

There may not be enough water flow through the heater to carry the heat away from the heating element. Heater start up will begin again after about 1 min. See “Flow Related Checks” below.

---


## Heater Flow is Reduced (LF)* – M017

There is not enough water flow through the heater to carry the heat away from the heating element and the heater has been disabled. See “Flow Related Checks” below. After the problem has been resolved, you must press any button to reset and begin heater start up.

---


## Heater may be Dry (dr)* – M028

Possible dry heater, or not enough water in the heater to start it. The spa is shut down for 15 min. Press any button to reset the heater start-up. See “Flow Related Checks” below.

---


## Heater is Dry* – M027

There is not enough water in the heater to start it. The spa is shut down. After the problem has been resolved, you must press any button to reset and restart heater start up. See “Flow Related Checks” below.

---


## Heater is too Hot (OHH)* – M030

One of the water temp sensors has detected 118°f (47.8°C) in the heater and the spa is shut down. You must press any button to reset when water is below 108°f (42.2°C). See “Flow Related Checks” below.

---


## A Reset Message may appear with other Messages.

Some errors may require power to be removed and restored.

---

## Flow-Related Checks

Check for low water level, suction flow restrictions, closed valves, trapped air, too many closed jets and pump prime.
On some systems even when spa is shut down, some equipment may occasionally
turn on to continue monitoring temperature or if freeze protection is needed.

* This message can be reset from the topside panel with any button press.

# Sensor-Related Messages


## Sensor Balance is Poor – M015

The temperature sensors MAY be out of sync by 2°F or 3°F. Call for Service.

---


## Sensor Balance is Poor* – M026

The temperature sensors ARE out of sync. The Sensor Balance is Poor fault has been established for at least 1 hour. Call for Service.

---


## Sensor Failure – Sensor A: M031, Sensor B: M032

A temperature sensor or sensor circuit has failed. Call for Service.

---

# Miscellaneous Messages


## No Communications

The control panel is not receiving communication from the System. Call for Service.

---


## Pre-Production Software

The Control System is operating with test software. Call for Service.

---


## °F or °C is replaced by °T

The Control System is in Test Mode. Call for Service.

# System-Related Messages


## Memory Failure - Checksum Error* – M022

At Power-Up, the system has failed the Program Checksum Test. This indicates a problem with the firmware (operation program) and requires a service call.

---


## Memory Warning - Persistent Memory Reset* – M021

Appears after any system setup change. Contact service, if this message appears on more than one power-up, or if it appears after the system has been running normally for a period of time.

---


## Memory Failure - Clock Error* – M020 - Not Applicable on the BP501, 6013

Contact service.

---


## Configuration Error – Spa will not Start Up

Contact service.

---


## GFCI Failure - System Could Not Test/Trip the GFCI – M036

**NORTH AMERICA ONLY. May indicate an unsafe installation. Contact service**.

---


## A Pump Appears to be Stuck ON – M034

Water may be overheated**. POWER DOWN THE SPA. DO NOT ENTER THE WATER. Contact your dealer or service organization**.

---


## A Pump Appears to have been Stuck ON when spa was last powered – M035

***POWER DOWN THE SPA. DO NOT ENTER THE WATER. Contact service.***

# Reminder Messages

## General maintenance helps.

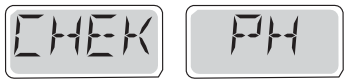
Reminder Messages can be suppressed by using the PREF Menu.

They may be disabled entirely, or there may be a limited number of reminders on a specific model.

The frequency of each reminder is different.

Press a Temperature button to reset a displayed reminder message.

---

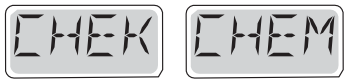



Alternates with temperature or normal display.

## Appears on a regular schedule, e.g. every 7 days (Disabled).

Check pH with a test kit and adjust pH with the appropriate chemicals.

---




Alternates with temperature or normal display.

## Appears on a regular schedule, e.g. every 7 days (Disabled).

Check sanitizer level and other water chemistry with a test kit and adjust with the appropriate chemicals.

---


Alternates with temperature or normal display.

## Appears on a regular schedule, e.g. every 30 days.

Clean the filter media as instructed by the manufacturer. See HOLD on page 6.

---


Alternates with temperature or normal display.

## Appears on a regular schedule, e.g. every 65 days (only for UL rated spas).

The Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD) is an important safety device and must be tested on a regular basis to verify its reliability.

Every user should be trained to safely test the GFCI or RCD associated with the hot tub installation.

A GFCI or RCD will have a TEST and RESET button on it that allows a user to verify proper function.

## Warning:

If freezing conditions exist, a GFCI or RCD should be reset immediately or spa damage could result.
The end user should always trained to test and reset the GFCI or RCD on a regular basis.

# Reminder Messages Continued


Alternates with temperature or normal display.

## Appears on a regular schedule, e.g. every 100 days.

Change the water in the spa on regular basis to maintain proper chemical balance and sanitary conditions.

---


Alternates with temperature or normal display(OFF).

## Appears on a regular schedule, e.g. every 180 days.(Disabled).

Vinyl covers should be cleaned and conditioned for maximum life.

---


Alternates with temperature or normal display.

## Appears on a regular schedule, e.g. every 180 days. (Disabled)

Wood skirting and furniture should be cleaned and conditioned per the manufacturers instructions for maximum life.

---


Alternates with temperature or normal display.

## Appears on a regular schedule, e.g. every 365 days.

Filters should be replaced occasionally to maintain proper spa function and sanitary conditions.

---


Alternates with temperature or normal display (OFF).

## As needed.

Install new cartridge

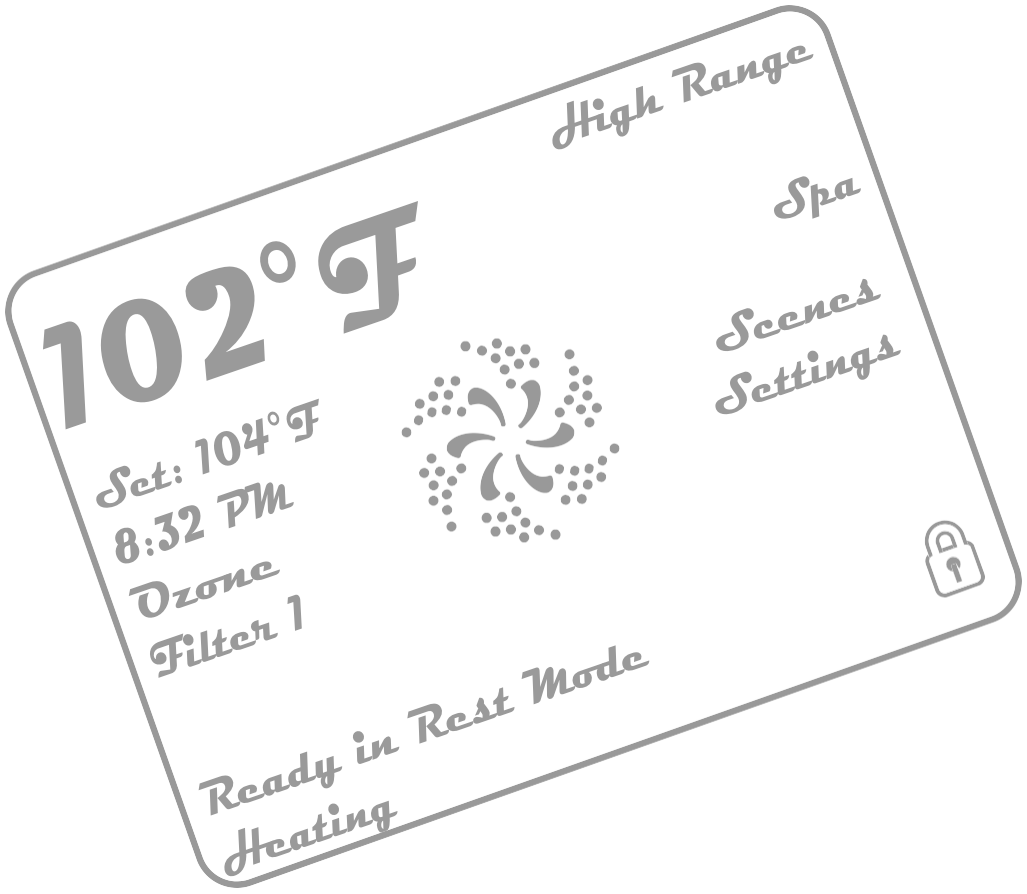
For Spas equipped with PBP501, PBP6013 controllers and Spa Touch panel.

# Spa Touch Control Panel

## User Interface and Programming Reference

The spa Touch menued panel is compatible with all BP systems that support the TP800 and/or the TP900 panels.

If this panel is used with a system that supports only the TP400 and/or TP600, many screens will work correctly, but the spa screen will not display correctly and may not control all of your equipment.




US/Canada. Parts #: PBP501(P.N. 56713, Spa Touch Panel (P.N.50390-04)

Export. Parts #: PBP6013 (P.N. 56715)-3kw heater, PBP6013(P.N. 56719)-2kw heater,
Spa Touch Panel (P.N.50390-04)

# The Main Screen

## Spa Status

Important information about spa operation can be seen on the Main Screen.

Most features, including Set Temperature adjustment, can be accessed from this screen.

The actual water temperature and Set Temperature can be seen, and the Set Temperature can be adjusted.

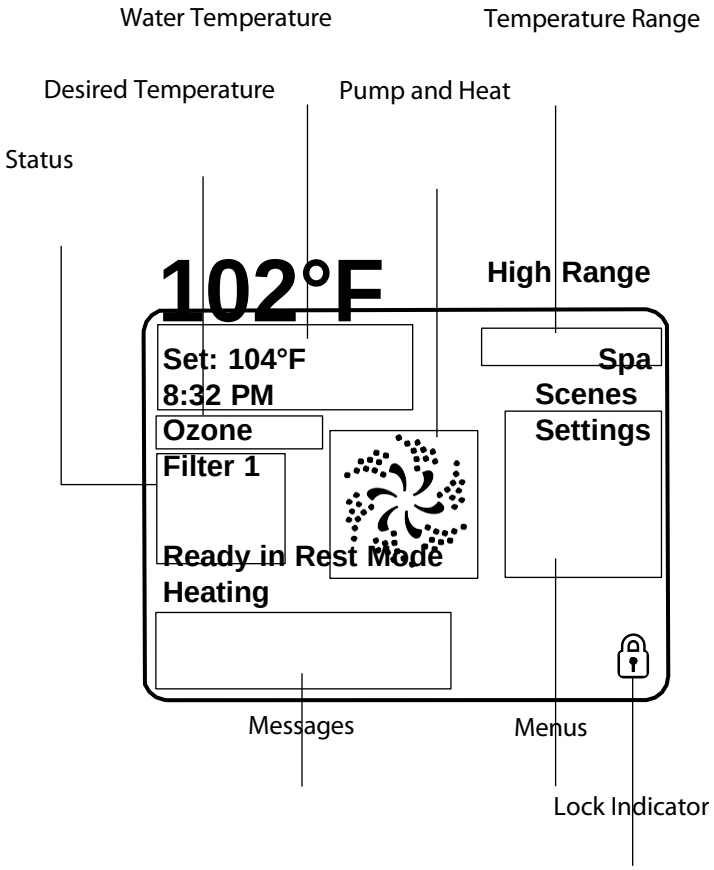
Time-of-Day, Ozone and Filter status is available, along with other messages and alerts.

The selected Temperature Range is indicated in the upper right corner.

The Jets Icon in the center will spin if any pump is running and changes color when the heater is on.

A Lock icon is visible if the panel or settings are locked.

The Menu choices on the right can be selected and the screen will change to show more detailed controls or programming functions.



# The Main Screen

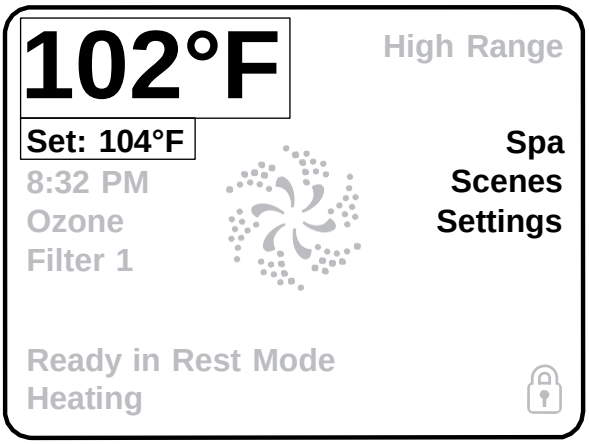
## Navigation

Navigating the entire menu structure is done by touching the screen.

When a text item is shown in white on the main screen, it is selectable.

The menu selections on the right side of the screen can be selected. Select one of these to enter different screen with additional controls.

Most menu screens time out and revert to the main screen after 30 seconds of no activity.

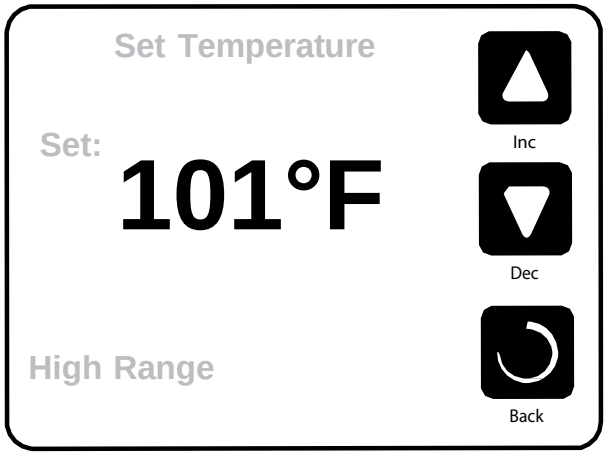



The only item that can be changed on the left side of the Main Screen is the Set Temperature. Touch either the set temperature line or the water temperature to go to the Set Temperature screen. See next page.

## Messages

At the bottom of the screen, messages may appear at various times. Some of these messages must be dismissed by the user .

# The Set Temperature Screen




## Set Temperature

Press  Inc. or Dec. to modify the Set Temperature. The Set Temperature changes  immediately. Press Back to return to the Main Screen.

If you need to switch between high range and low range you need to go to the Settings Screen (Menu).

## Press-and-Hold

If the Up or Down button is pressed and held, the temperature will continue to change until the button is released, or the Temperature Range limits are reached.

# The Spa Screen

## All Equipment Access

The Spa Screen shows all available equipment to control, as well as other features, like Invert. The display shows icons that are related to the equipment installed on a particular spa model, so this screen may change depending on the installation.

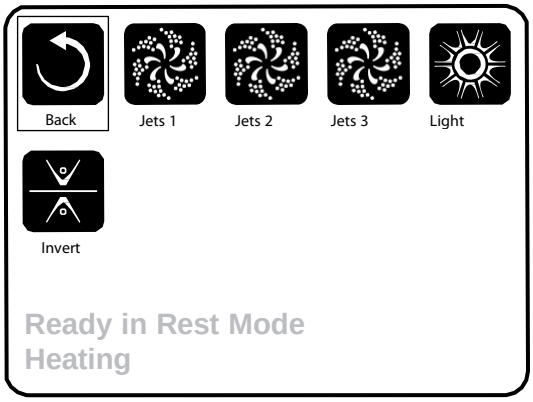
The icon buttons are used to select and control individual devices.

Some devices, like pumps, may have more than one ON state, so the icon will change to reflect the state that the equipment is in. Below are some examples of 2-speed Pump indicators.


If the Spa has a Circ Pump, a Circ Pump Icon will appear to indicate its activity, but outside of Priming Mode, the Circ Pump cannot be controlled directly.

NOTE: The icon for the pump that is associated with the heater (Circ or P1 Low) will have a red glow in the center when the heater is running.

Icon "Stir" associated with Swim Jets 1-3 in swim spa only. Pressing this button will activate J1-J3 automatically for 20 minutes. Also Swim Jets 1-3 controlled individually by buttons J2, J3, J4 .



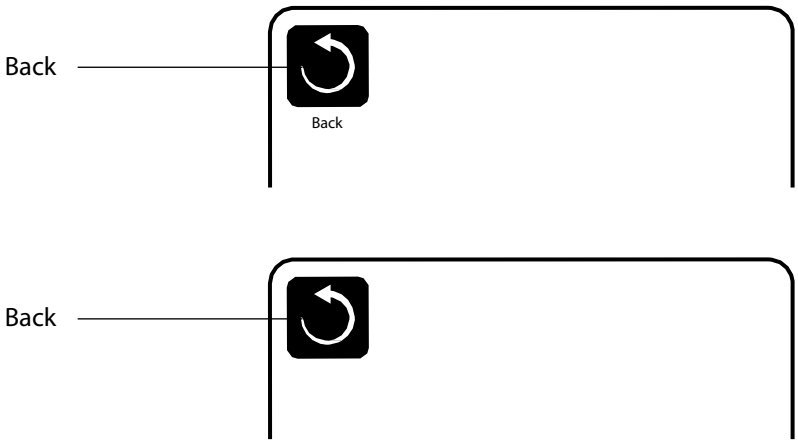
# Common Buttons

## Exiting Screens

When you see both of these buttons, whether they are labeled or not, they always mean Save and Cancel. They appear on most editing screens once you have changed the value on that screen.


If the screen times out due to no activity it will act like Cancel.

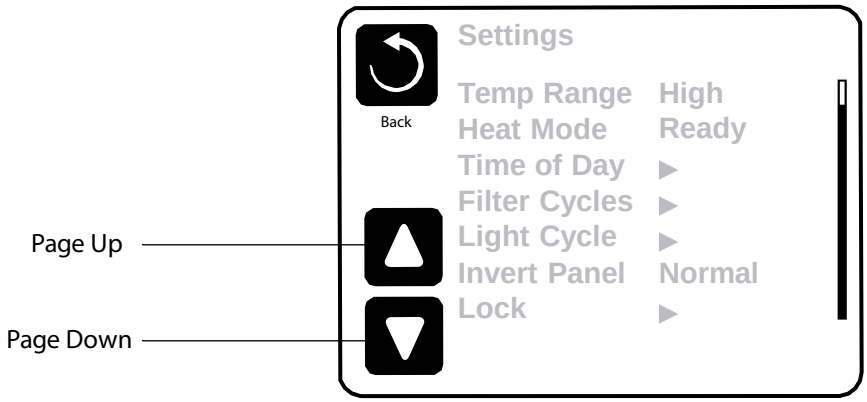
When you see only this button, whether it is labeled or not, it means Back or Exit. It appears on editing screens before you have changed any value, as well as on all other screens.



# Common Buttons

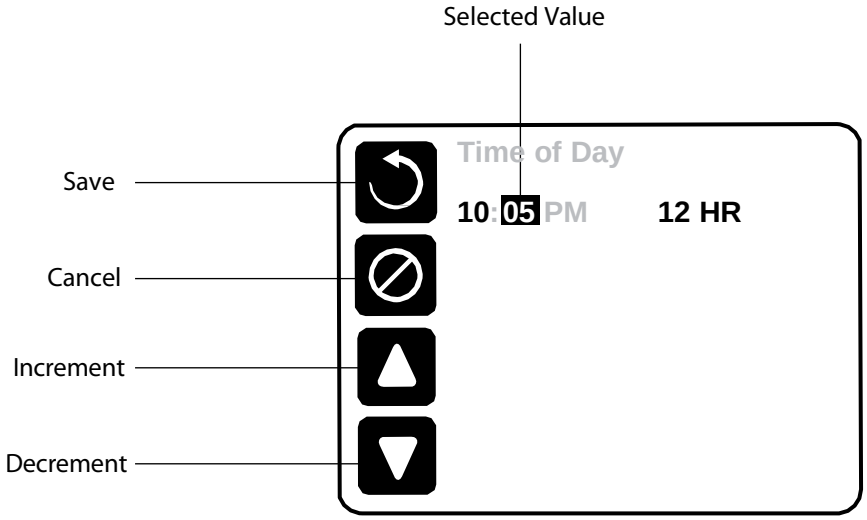
## Page Up/Down

If an Up or Down button is shown and pressed when in a Menu List, the list can be scrolled a page at a time. The scroll bar on the right side of the screen indicates the relative position of the page.




## Values Increment/Decrement

If an Up or Down button is shown and pressed when on an editing page, and a value has been selected (highlighted), the value can be incremented by pressing the up arrow or decremented by pressing the down arrow.



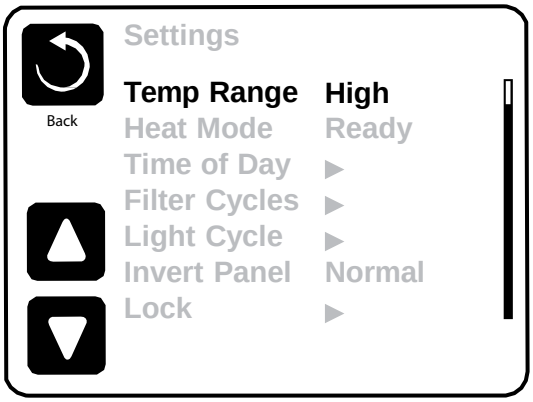
# The Settings Screen

## Programming, Etc.

The Settings Screen is where all programming and other spa behaviors are controlled.

This screen has several features that can be acted on directly. These features may include Temp Range, Heat Mode, Hold, and Invert Panel. When one of these items is selected, it will toggle between two settings.

All other menu items (with an arrow pointing to the right) go to another level in the menu.




## Dual Temperature Ranges (High vs. Low)

This system incorporates two temperature range settings with independent set temperatures. The specific range can be selected on the Settings screen and is visible on the Main Screen in the upper right corner of the display.

These ranges can be used for various reasons, with a common use being a “ready to use” setting vs. a “vacation” setting. Each range maintains its own set temperature as programmed by the user. This way, when a range is chosen, the spa will heat to the set temperature associated with that range.

*High Range can be set between 80°F and 104°F.*

*High Range default Temp. 100°F.*

*Low Range can be set between 50°F and 99°F.*

*Low Range default Temp. 70°F.*

*Freeze Protection is active in either range.*

*Freeze Threshold is 44°F (7°C).*

*Freeze Type is rotating with pumps at lowest speed.*

# The Settings Screen

## Heat Mode – Ready vs. Rest

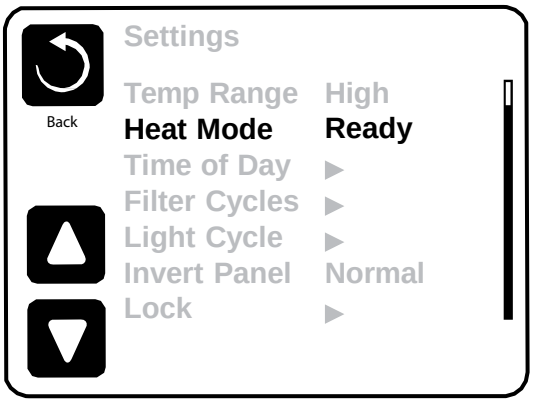
In order for the spa to heat, a pump needs to circulate water through the heater. The pump that performs this function is known as the “heater pump”.

The heater pump can be either a 2-speed pump (Pump 1) or a circulation pump.
If the heater pump is a 2-speed pump, Ready mode will circulate water every 30 minutes, using Pump 1 Low, in order to maintain a constant water temperature, heat as needed, and refresh the temperature display. This is known as “polling”. Rest Mode will only allow heating during programmed filter cycles. Since polling does not occur, the temperature display may not show a current temperature until the heater pump has been running for a minute or two.

If the heater pump is a programmable circulation pump Ready Mode Circ. pump will circulate water every 30minutes in order to maintain a constant water temperature, heat as needed, and refresh the temperature display.

If the spa is configured for 24Hr circulation, the heater pump generally runs continuously. Since the heater pump is always running, the spa will maintain set temperature and heat as needed in Ready mode without polling.

In Rest Mode the spa will heat to set temperature during programmed filter cycles,. even though the water is being filtered constantly when in 24Hr circulation mode.




## Ready-in-Rest Mode

Ready in Rest Mode appears in the display if the spa is in Rest Mode and the Jets 1 Button is pressed. When the heater pump has come on automatically (for example for heating) you can switch between low speed and high speed but you cannot turn the heater pump off. After 1 hour, the System will revert to Rest Mode. This mode can also be reset by entering the Settings Menu and selecting the Heat Mode line.

# Operational Checking Your Spa

## Preparation, Filling and Energizing Hot Tub Equipment

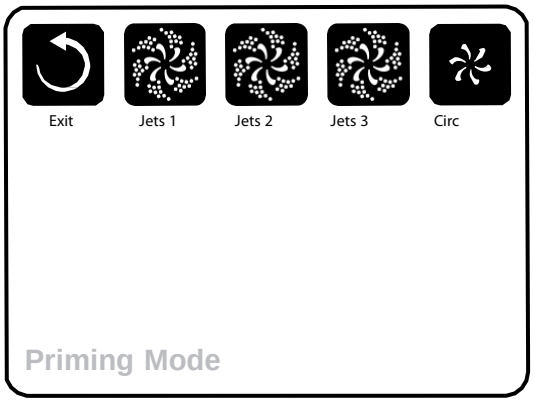
Fill the spa to its correct operating level. Be sure to open all valves and jets in the plumbing system before filling to allow as much air as possible to escape from the plumbing and the control system during the filling process.

Before applying voltage to power up your spa, it is very important that you understand the sequence of events that occur when system is activated in order that pumps can be primed efficiently and damage can be avoided. Turn on the GFCI breaker and test the GFCI breaker, by pushing the small "Test" button. This should automatically trip the spa's GFCI. If this breaker does not trip, immediately call your electrician. Do not use your spa! Only if pushing "Test" button trips GFCI should you reset the breaker and proceed next step. After turning the power on at the main power panel, the top-side panel will display a splash screen or startup screen.

## Priming Mode – M019*

After the initial start-up sequence, the control will enter Priming Mode and display a Priming Mode screen. Only pump icons appear on the priming mode screen. During the priming mode, the heater is disabled to allow the priming process to be completed without the possibility of energizing the heater under low-flow or no-flow conditions. Nothing comes on automatically, but the pump(s) can be energized by selecting the "Jet" buttons. If the spa has a Circ Pump, it can be turned on and off pressing the "Circ Pump" button during Priming Mode only.

## Priming the Pumps




As soon as the Priming Mode screen appears on the panel, select the "Jets 1" button once to start Pump 1 in low-speed and then again to switch to high-speed. Also, select the other pumps, to turn them on. The pumps should be running in high-speed to facilitate priming. If the pumps have not primed after 2 minutes, and water is not flowing from the jets in the spa, do not allow the pumps to continue to run. Turn off the pumps and repeat the process. Note: Turning the power off and back on again will initiate a new pump priming session. Sometimes momentarily turning the pump off and on will help it to prime. Do not do this more than 5 times. If the pump(s) will not prime, shut off the power to the spa and call for service.

Important: A pump should not be allowed to run without priming for more than 2 minutes. Under NO circumstances should a pump be allowed to run without priming beyond the end of the 4-5 minute priming mode. Doing so may cause damage to the pump and cause the system to energize the heater and go into an overheat condition.

## Exiting Priming Mode

The system will automatically enter the normal heating and filtering at the end of the priming mode, which lasts 4-5 minutes.

You can manually exit Priming Mode by pressing the "Exit" button on the Priming Mode Screen. Note that if you do not manually exit the priming mode as described above, the priming mode will be automatically terminated after 4-5 minutes. Be sure that the pump(s) have been primed by this time.

Once the system has exited Priming Mode, the top-side panel will display the Main Screen, but the display will not show the temperature yet, as shown below. This is because the system requires approximately 1 minute of water flowing through the heater to determine the water temperature and display it.

**– – –°F – – –°C**

*M0XX is a Message Code.

# Spa Operation

## Pumps

On the Spa Screen, select a “Jets 1”, “Jets2”, “Jets 3”, “ button (if equipped) once to turn the pump on or off, and to shift between low and high speed for two speed pumps or turn the pump on and off for single speed pump.. If left running, the pump will turn off after time- out period.

Non-circulation systems. The Low speed of pump 1 runs when the blower or any other pump is on. If the spa is in Ready Mode, Pump 1(Low) may also activate for at least 1 minute every 30 minutes to detect the spa water temperature(polling) and then to heat to the set temperature if needed. When the pump 1(Low) turns on automatically, it cannot be deactivated from the panel, however the High speed may be started.

Circulation systems. If the spa equipped with a circulation pump it will configured in one of three different ways:

1.The circulation pump operates continuously (24 hours) with exception of turning off for 30 minutes at a time when the water temperature 3°F(1.5°C) above the set temperature (Settings 6-10 with 2000, 2100 controllers).

2. The circulation pump stays on continuously, regardless of water temperature (Settings 1-5 with 2000, 2100 controllers).

3. A programmable circ pump will come on every ½ hour when the system is checking temperature (polling), during filter cycles, during freeze conditions, or when another pump is on. (Settings 1-4 with 500, 6013 controllers).

## Filtration and Ozone

On non-circulation systems, Pump 1(Low) and ozone generator will run during filtration. On circ. systems, the ozone generator will run with circulation pump, but can be limited to filtration cycles(a programmable circulation system).

Non-circ. system is factory-programmed with two filter cycles that will run twice per day (start 8:00AM and 8:00PM), duration is 2 hours. The filter time and duration are programmable. A second filter cycle can be enabled as needed.

Programmable circ. system is factory-programmed with two filter cycles that will run twice per day (start 8:00AM and 8:00PM), duration is 12 hours. The filter time and duration are programmable. A second filter cycle can be enabled as needed.

On 24-hours circulation systems , circulation pump runs continuously and additional Pump 1(Low) filtration is available as needed. Pump 1(Low) is factory-programmed with two filter cycles that will run twice per day (start 8:00AM and 8:00PM), duration is 2 hours. The filter time and duration are programmable. A second filter cycle can be enabled as needed.

You can’t set total filtration time for Pump 1(Low) less 15 minutes. It is necessary to maintain good water quality in Pump 1 plumbing lines.

At the start of each filter cycle, the water devices like blower (if exist) and other pumps will run briefly to purge the plumbing to maintain good water quality. Blower for 30 seconds, pumps for 60seconds.

## Freeze Protection

If the temperature sensors within the heater detect a low enough temperature (44°F/7°C), then the pump(s), the blower (if equipped) automatically activate to provide freeze protection. The water devices will run either continuously or periodically depending on conditions. Pumps will run on lowest speed.

## Clean-up Cycle (optional)

When any pump or blower is turned on by a button press, a clean-up cycle begins 30 minutes after the pump or blower is turned off or times out. The pump and the ozone generator will run for 30 minutes or more, depending on the system. On some systems, you can change this setting.

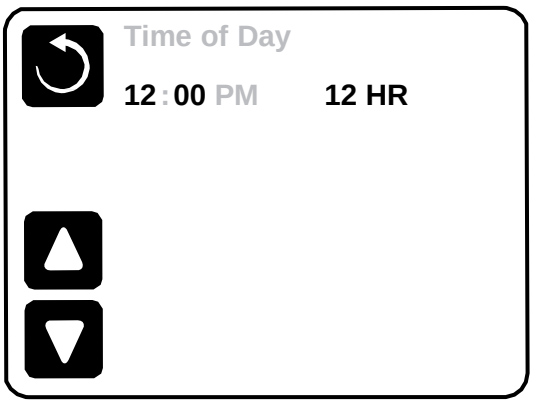
# Time-of-Day

## Be sure to set the Time-of-Day

Setting the time-of-day is important for determining filtration times and other background features.

"Set Time" will appear on the display if no time-of-day is set in the memory.

On the Settings Screen, select the Time-of-Day line. On the Time-of-Day screen, simply select the Hour, Minutes, and 12/24 Hour segments. Use the Up and Down Buttons to make changes.




## Note:

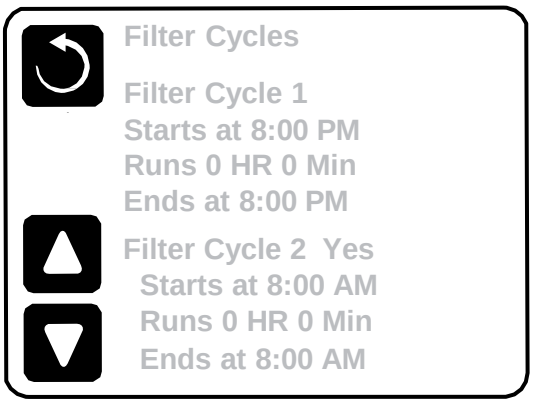
If power is interrupted to the system, Time-of-Day will be maintained for several days.

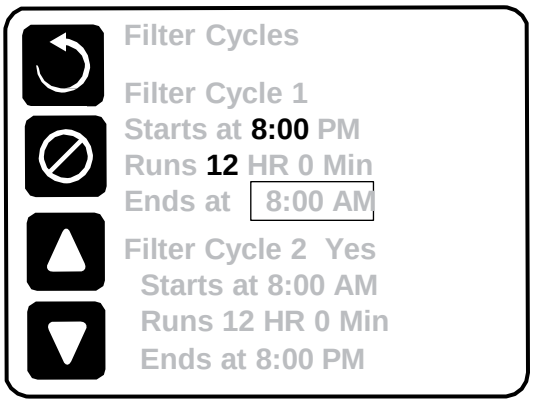
# Adjusting Filtration

Your spa was manufactured with Programmable Circ Pump that allow programming filtration cycles (start time and duration.

## Main Filtration

Using the same adjustment as Setting the Time, Filter Cycles are set using a start time and a duration. Each setting can be adjusted in 15-minute increments. The panel calculates the end time and displays it automatically.




## Filter Cycle 2 - Optional Filtration

Filter Cycle 2 is ON by default. This displays as "Yes". When Filter Cycle 2 is OFF it displays as "NO".

Press "Yes" or "No" to toggle Filter Cycle 2 ON or OFF. When Filter Cycle 2 is ON, it can be adjusted in the same manner as Filter Cycle 1.

On Programmable circ. pump system Default Start time Filter Cycle 1 is 8:00PM and Filter Cycle 2 is 8:00AM and durations are 12HRs.

On Non. circ. system Default Start time Filter Cycle 1 is 8:00PM and Filter Cycle 2 is 8:00AM and durations are 2HRs.

It is possible to overlap Filter Cycle 1 and Filter Cycle 2, which will shorten overall filtration by the overlap amount.

## Purge Cycles

In order to maintain sanitary conditions, as well as protect against freezing, secondary water devices will purge water from their respective plumbing by running briefly at the beginning of each filter cycle.

## The Meaning of Filter Cycles

1. The heating pump always runs during the filter cycle
2. In Rest Mode, heating only occurs during the filter cycle
3. Purges happen at the start of each filter cycle

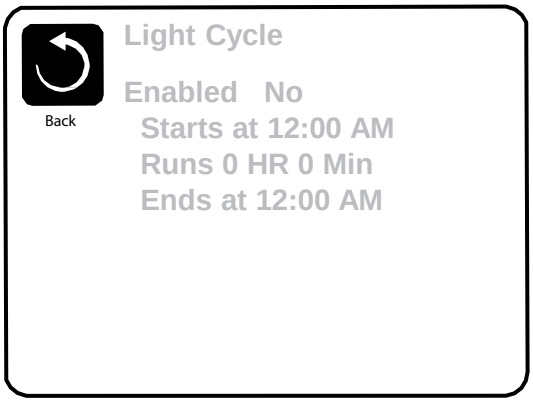
# Additional Settings

## Light Cycle Option

If Light Cycle does not appear in the Settings Menu, the Light Timer feature is not enabled.

When available, the Light Timer is OFF by default.

The settings can be edited the same way that Filter Cycles are edited.




## Invert Panel

Selecting Invert Panel will flip the display and the buttons so the panel can be easily operated from inside or outside the hot tub.

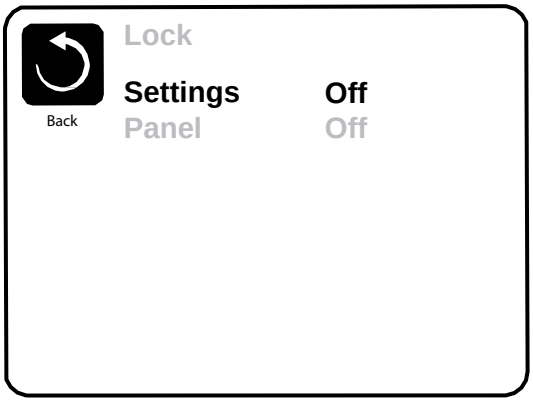
# Auxiliary Panel(s). (If spa equipped).

## Specific Buttons for Specific Devices

If the spa (swim spa) has an Auxiliary Panel(s) installed, pressing buttons on that panel will activate the device indicated for that button (Jets 1, Light).

These dedicated buttons will operate just like the Spa Screen buttons and the equipment will behave in the same manner with each button press.

# Restricting Operation



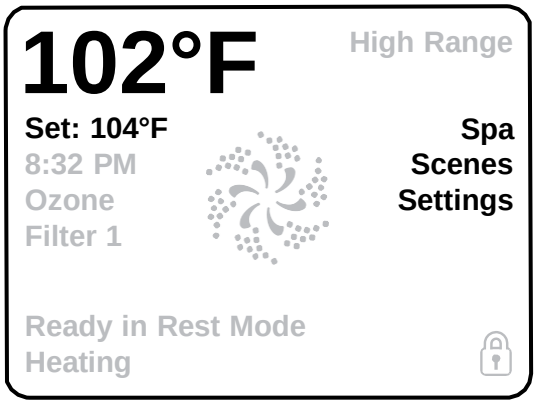

The control can be restricted to prevent unwanted use or temperature adjustments.

Locking the Panel prevents the controller from being used, but all automatic functions are still active.

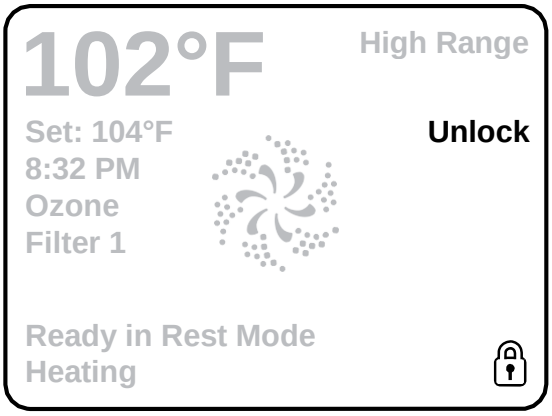
Locking the Settings allows Jets and other features to be used, but the Set Temperature and other programmed settings cannot be adjusted.

Settings Lock allows access to a reduced selection of menu items. These include Filter Cycles, Invert, Information and Fault Log. They can be seen, but not changed or edited.

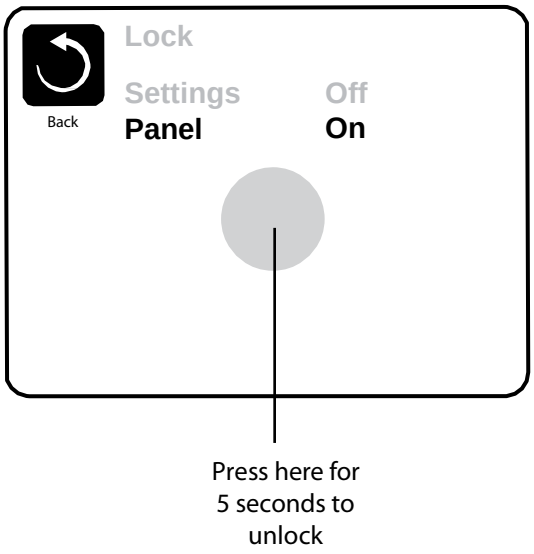
Settings Locked




Panel Locked




# Unlocking




To unlock either Settings or Panel first select Settings (if it says “On”) or Panel (if it says “On”), than press in the middle of the screen for at least 5 seconds.

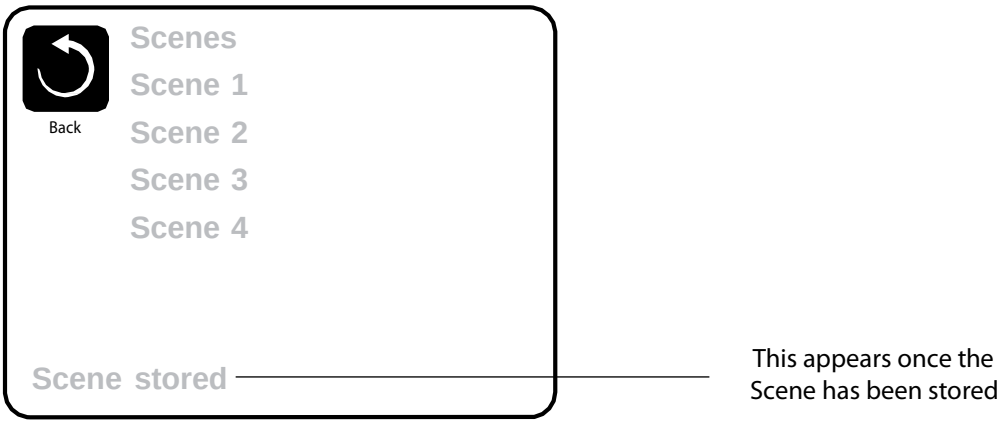
# Scenes

## What are Scenes?

Scenes are stored combinations of equipment states. For example if you want to have Pump 1 at high speed, Pump 2 at high speed, Pump 3 at high speed and the Light ON, you could store that in a Scene and recall this combination at any time.

## Storing a Scene

Press a Scene number and hold until “Scene stored“ appears at the bottom of the screen to save the current equipment combination.




## Recalling a Scene

To recall a Scene simply press a Scene number.

Pressing any Scene line which has not yet been stored will simply turn off all spa devices.

# Additional Settings

## Hold Mode - M037*

Hold Mode is used to disable the pumps during service functions like cleaning or replacing the filter. Hold Mode will last for 1 hour unless the mode is exited manually. If spa service will require more than an hour, it may be best to simply shut down power to the spa.

## Drain Mode (Disabled)

Some spas have a special feature that allows Circ. pump or Pump 1 to be employed when draining the water. When available, this feature is a component of Hold Mode.

---

## Utilities

The Utilities Menu contains the following:

## A/B Temps

When this is set to On, the main screen will display sensor A and sensor B temperatures simultaneously. Sensor A is at the opposite end of the heater from sensor B. Can used for Troubleshooting.

## Demo Mode (Disabled)

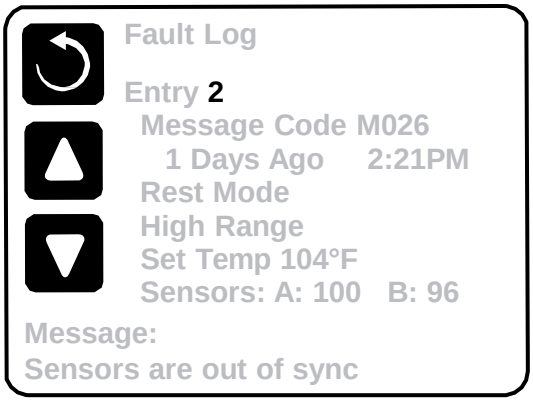
Demo Mode is not always enabled, so it may not appear. This is designed to operate several devices in a sequence in order to demonstrate the various features of a particular hot tub.

## Fault Log

The Fault Log is a record of the last 24 faults that can be reviewed by a service tech.

Use the Up and Down buttons to view each of the Faults.

When Priming Mode shows in the Fault Log, it is not a fault. Rather, it is used to keep track of spa restarts.




## GFCI Test
## (Feature not available on CE rated systems.)

Your system configured with:

Manual GFCI Trip test is enabled but automatic GFCI test is not enabled.

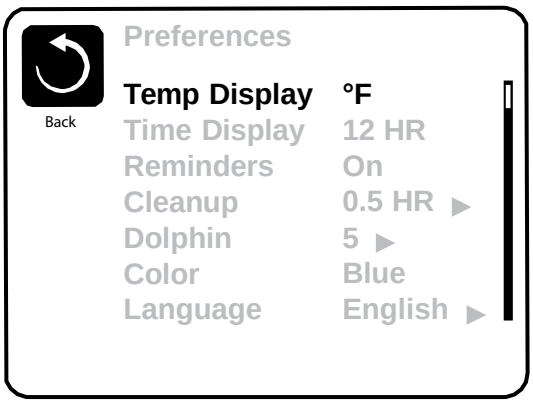
GFCI Test will not appear on the screen if it is not enabled. This screen allows the GFCI to be tested manually from the panel and can be used to reset the automatic test feature.

*M0XX is a Message Code. Codes like this will be seen in the Fault Log

# Additional Settings

## Preferences

The Preferences Menu allows the user to change certain parameters based on personal preference.




## Temp Display

Change the temperature between Fahrenheit and Celsius.

## Time Display

Change the clock between 12 hr and 24 hr display.

## Reminders

Turn the reminder messages (like "Clean Filter") On or Off.

## Cleanup

Cleanup Cycle Duration is not always enabled, so it may not appear. When it is available, set the length of time Pump 1 will run after each use. 0-4 hours are available.

## Dolphin II and Dolphin III (Applies to RF Dolphin only)

When set to 0, no addressing is used. Use this setting for a Dolphin II or Dolphin III which is factory set for no address by default. When set between 1 and 7, the number is the address (See the Dolphin manual for details.)

## Color

Selecting Color will cycle through 5 background colors available in the control.

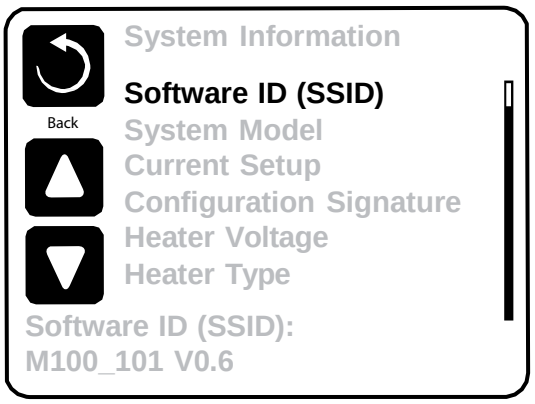
## Language

Change the language displayed on the panel.

# Information

## System Information

The System Information Menu displays various settings and identification of the particular system. As each item in the menu is selected, the detail for that item is displayed at the bottom of the screen.




## Software ID (SSID)

Displays the software ID number for the System.

## System Model

Displays the Model Number of the System.

## Current Setup

Displays the currently selected Configuration Setup Number.

## Configuration Signature

Displays the checksum for the system configuration file.

## Heater Voltage (Feature not used on CE rated systems.)

Displays the operating voltage configured for the heater.

## Heater Wattage as Configured in Software (CE Systems Only.)

Displays a heater kilowatt rating as programmed into the control system software (1-3 or 3-6).

## Heater Type

Displays a heater type ID number.

## Dip Switch Settings

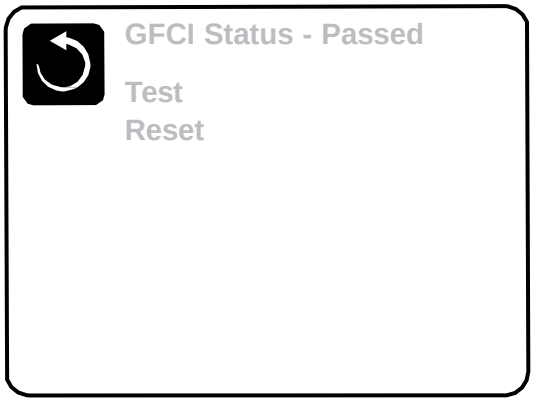
Displays a number that represents the DIP switch positions of S1 on the main circuit board.

## Panel Version

Displays a number of the software in the topside control panel.

# Utilities – GFCI Test Feature

The Ground Fault Circuit Interrupter (GFCI) or Residual Current Detector (RCD) is an important safety device and is required equipment on a hot tub installation.
**(The GFCI Test Feature is not available on CE rated systems.**




## Used for verifying a proper installation

Your spa may be equipped with a GFCI Protection feature. If your spa has this feature enabled by the manufacturer, the GFCI Trip Test must occur to allow proper spa function.

On your spa this option is disabled..

## Forcing the GFCI Trip Test (North America Only). Enable for Your Spa

The installer can cause the GFCI Trip Test to occur sooner by initiating it using the above menu.

The GFCI should trip within several seconds and the spa should shut down. If it does not, shut down the power and manually verify that a GFCI breaker is installed and that the circuit and spa are wired correctly. Verify the function of the GFCI with its own test button. Restore power to the spa and repeat the GFCI Trip Test.

Once the GFCI is tripped by the test, reset the GFCI and the spa will operate normally from that point. You can verify a successful test by navigating to the above menu. “Passed” should appear after the Reset line is selected on the GFCI screen.

## Warning:

The end-user must be trained how to properly reset the GFCI.

If freezing conditions exist, the GFCI or RCD should be reset immediately or spa damage could result.

## CE Product:

CE registered systems do not have an RCD Test Feature due to the nature of the electrical service..

The end-user must be trained how to properly test and reset the RCD.

# General Messages

Most messages and alerts will appear at the bottom of the normally used screens.
Several alerts and messages may be displayed in a sequence.

## – – –°F  – – –°C

### Water Temperature is Unknown

After the pump has been running for 1 minute, the temperature will be displayed.

---

### Possible freezing condition

A potential freeze condition has been detected, or the Aux Freeze Switch has closed. All water devices are activated.

In some cases, pumps may turn on and off and the heater may operate during Freeze Protection.

This is an operational message, not an error indication.

---

### The water is too hot – M029*

The system has detected a spa water temp of 110°F (43.3°C) or more, and spa functions are disabled. System will auto reset when the spa water temp is below 108°F (42.2°C). Check for extended pump operation or high ambient temp.

---

# Heater-Related Messages

## The water flow is low – M016**

There may not be enough water flow through the heater to carry the heat away from the heating element. Heater start up will begin again after about 1 min. See "Flow Related Checks" below.

## The water flow has failed* – M017**

There is not enough water flow through the heater to carry the heat away from the heating element and the heater has been disabled. See "Flow Related Checks" below. After the problem has been resolved, reset the message*.

## The heater may be dry* – M028**

Possible dry heater, or not enough water in the heater to start it. The spa is shut down for 15 min. Reset this message* to reset the heater start-up. See "Flow Related Checks" below.

## The heater is dry* – M027**

There is not enough water in the heater to start it. The spa is shut down. After the problem has been resolved, you must reset the message* to restart heater start up. See "Flow Related Checks" below.

## The heater is too hot* – M030**

One of the water temp sensors has detected 118°f (47.8°C) in the heater and the spa is shut down. You must reset the message* when water is below 108°f (42.2°C). See "Flow Related Checks" below.

## Flow-Related Checks

Check for low water level, suction flow restrictions, closed valves, trapped air, too many closed jets and pumps prime.

On some systems, even when spa is shut down by an error condition, some equipment may occasionally turn on to continue monitoring temperature or if freeze protection is needed.

* ***Some messages can be reset from the panel.*** Messages that can be reset will appear with a "right arrow" at the end of the message. Press the message text to reset the message.


**M0XX is a Message Code. Codes like this will be seen in the Fault Log

# Sensor-Related Messages

### Sensors are out of sync – M015**

The temperature sensors MAY be out of sync by 3°F. Call for Service.

### Sensors are out of sync -- Call for service* – M026**

The temperature sensors ARE out of sync. The fault above has been established for at least 1 hour.
Call for Service.

### Sensor A Fault, Senor B Fault – Sensor A: M031**, Sensor B: M032**

A temperature sensor or sensor circuit has failed. Call for Service.

# Miscellaneous Messages

### Communications error

The control panel is not receiving communication from the System. Call for Service.

### Test software installed

The Control System is operating with test software. Call for Service.

### °F or °C is replaced by °T

The Control System is in Test Mode. Call for Service.

# System-Related Messages

## Program memory failure* – M022**

At Power-Up, the system has failed the Program Checksum Test. This indicates a problem with the firmware (operation program) and requires a service call.

## The settings have been reset (Persistent Memory Error)* – M021**

Contact your service if this message appears on more than one power-up.

## The clock has failed* – M020**

Contact your service.

## Configuration error (Spa will not Start Up)

Contact your service.

## The GFCI test failed (System Could Not Test the GFCI)– M036**

(North America Only) May indicate an unsafe installation. Contact your service.

## A pump may be stuck on – M034**

Water may be overheated. POWER DOWN TO THE SPA. DO NOT ENTER THE WATER. Contact your service.

## Hot fault – M035**

A Pump Appears to have been Stuck ON when spa was last powered
POWER DOWN TO THE SPA. DO NOT ENTER THE WATER. Contact your service.

# Reminder Messages

## General maintenance helps.

Reminder Messages can be suppressed by using the Preferences Menu.

Reminder Messages can be chosen by the Manufacturer. They may be disabled entirely, or there may be a limited number of reminders on a specific model. The frequency of each reminder (i.e. 7 days) can be specified by the Manufacturer.

Press a Temperature button to reset a displayed reminder message.

## Check the pH

May appear on a regular schedule, i.e. every 7 days. (Disabled)

Check pH with a test kit and adjust pH with the appropriate chemicals.

## Check the sanitizer

May appear on a regular schedule, i.e. every 7 days. (Disabled)

Check sanitizer level and other water chemistry with a test kit and adjust with the appropriate chemicals.

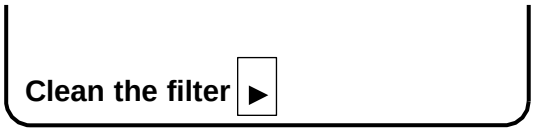
## Clean the filter

May appear on a regular schedule, i.e. every 30 days.

Clean the filter media as instructed by the manufacturer.

Additional messages may appear on specific systems.

***Reminder messages can be reset from the panel.*** Messages that can be reset will appear with a "right arrow" at the end of the message. Press the message text to reset the message.



# Reminder Messages

## **Test the GFCI** (or RCD)

May appear on a regular schedule, i.e. every 65 days.

The GFCI or RCD is an important safety device and must be tested on a regular basis to verify its reliability.

Every user should be trained to safely test the GFCI or RCD associated with the hot tub installation.

A GFCI or RCD will have a TEST and RESET button on it that allows a user to verify proper function.

## Change the water

May appear on a regular schedule, i.e. every 100 days.

Change the water in the spa on regular basis to maintain proper chemical balance and sanitary conditions.

## Clean the cover

May appear on a regular schedule, i.e. every 180 days. (Disabled).

Vinyl covers should be cleaned and conditioned for maximum life.

## Treat the wood

May appear on a regular schedule, i.e. every 180 days. (Disabled).

Wood skirting and furniture should be cleaned and conditioned per the manufacturers instructions for maximum life.

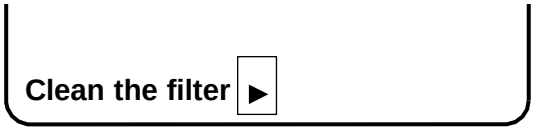
## Change the filter

May appear on a regular schedule, i.e. every 365 days.

Filters should be replaced occasionally to maintain proper spa function and sanitary conditions.

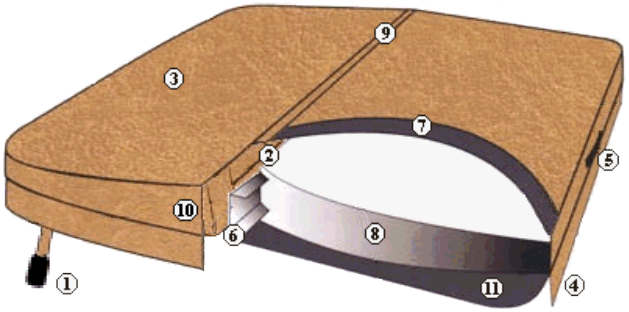
Additional messages may appear on specific systems.

***Reminder messages can be reset from the panel.***
Messages that can be reset will appear with a "right arrow" at the end of the message. Press the message text to reset the message.



# Spa Cover

Place the insulated cover on your hot tub. Keeping the cover in place anytime the hot tub is not in use reduces the heating time and minimizes operating costs. The time required for initial heat-up varies depending on the starting water temperature, ambient temperature, and the capacity of your hot tub.




**Cover Callouts**

1. Lock-down tab
2. Double-stitched seams
3. Marine-grade cover material
4. Edge overlap material
5. Grip handle
6. Aluminum channel
7. Heat-sealed insulation
8. Chemical-resistant vapor barrier
9. Polystyrene seam stoppers
10. Reinforced edges
11. Breathable underside material

Use the lock-down tabs to prevent access to the hot tub by children and to prevent the wind from lifting the cover off.

**Lockdown Tabs**

Sitting, standing, and snow buildup on the cover will break the cover. Dragging it over rough surfaces will scuff or tear the fabric. Always lift by the handles or use the optional cover lift device.

# Water Management

Our chemical water purification system is a perfect match for your hot tub.

If your water quality seems improper, increasing the time your hot tub filters the water may clear up your problem.

Below are some answers to common water chemistry questions.

| | |
|---|---|
| **pH** | It is common to have pH fluctuations after adding chemicals to your hot tub or after a party. Let your jets run and give your water time to stabilize. 9 times out of 10, your pH will come back into the 7.4-8.2 range on its own. |
| **Mildew on cover** | Mildew usually grows in the folds and seams of your cover and then drips into your hot tub water causing cloudiness and/or odor. Clean with our special non-foaming All Purpose Cleaner and then rinse the inside of your cover with clean warm water. |
| **Foamy water** | Foam typically results from soap residue on your skin and hair, or laundry detergent residue on clothing. Take a soapless shower and rinse all clothing in warm water prior to bathing. |
| **CLEAR green or brown water** | Your “source water” most likely has dissolved heavy metals. When this is the case, use a respected brand of demineralizer found at any local pool/ hot tub store. Using a pre-filter can remove these contaminants before they get into your hot tub. |
| **CLOUDY green water** | Algae can be resolved by adding a respected brand of algaecide. |
| **CLOUDY white water** | Although a normal condition immediately after filling that dissipates after time, with stabilized water this is a visual indication that the total alkalinity or pH or both are at improper levels. Test your water weekly and maintain proper water chemistry. |
| **Odor and/or cloudy water** | If your water develops an odor and/or cloudiness, clean your cover and filters and try increasing the amount of time your hot tub filters per day by turning your filtration cycle time or duration up. |
| **Heavy Use** | After a period of heavy use, your hot tub may cloud. Shock your hot tub with 2 ounces of non-chlorine shock and wait 36 hours. |

# Frequently Asked Questions

## Who do I call for warranty information or service?

Call our customer care center, at 727.573.9611. Please note, you must register your hot tub within 30 days of purchasing or your warranty will be voided. Our representatives can assist with this process or you can get help online at www.LifesGreatSpas.com.

## Who are the service companies in my area?

Fourteen Hundred Spas contracts with several service companies in your area to ensure the best possible response time. Our customers are guaranteed to receive service response priority. If you encounter a matter that can't be easily resolved over the phone, a local technician can be dispatched to your home. The service technician may assess reasonable travel charges during on-site repairs. Call our customer care center, at 727.573.9611.

## What happens when my warranty expires?

Fourteen Hundred Spas will continue to provide service for your hot tub after your warranty has expired via our customer care center at 727.573.9611.

## Are the jets removable? Interchangeable? Replaceable?

Most jets are made removable and adjustable for customized hydrotherapy.

## How often should I drain my hot tub?

You should drain and refill your hot tub every 1-3 months depending on usage. Every other time you drain and refill, you should also replace the filters and wipe down the hot tub.

## How do I adjust my jet?

Simply turn the jets counterclockwise to open and clockwise to close. Be careful not to overturn the jets, as damage can occur.

⚠ **Caution:** Do not turn off too many jets at the same time. This will create backflow and possible damage to your hot tub!

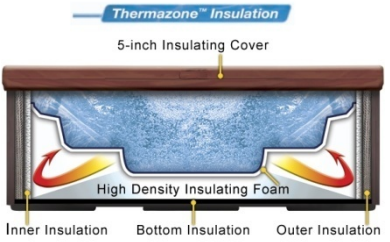
## How do I bleed air from my system?

When draining and refilling your hot tub, the pump may become air locked. Air-locked pumps stop water from flowing in your hot tub and is easily resolved by bleeding off the trapped air. To do this:

- Turn off the GFCI breaker
- Open the access panel below the topside control panel
- Loosen a heater union until you hear the trapped air escape
- Once water drips out in a continuous stream, hand tighten the union until the water stops leaking
- Loosen the discharge union on Pump 2 (if equipped) as above
- Turn on all pumps to make sure that there are no leaks
- Put the access panels back on
- Turn on the GFCI breaker


## What is the insulation made of?

We use a Thermazone™ process to fully insulate all of our hot tubs. First, the bottom of each shell is blanketed with a thick layer of solid-cell, high-density insulating foam. Second, a blanket layer of insulation is added and wrapped around the entire interior of the cabinet.




Third, an air-tight base prevents heat loss. Fourth, a 5-inch thick insulating cover is included.

## How should I clean my hot tub?

Use non-sudsing cleaners and non-oily polishes. Our All Purpose Cleaner quickly removes scum lines and helps restore your shell's original beauty. Rinse all filters, covers, pillows, and surfaces thoroughly with warm tap water. Our Filter Cleanser is a safe, effective way to clean and re-use your filters and our Plumbing Cleanser cleans the inside of all plumbing in your hot tub. Call 727.573.9611 to order these easy-to-use cleaning products.

## Where can I get more Chemicals or other accessories?

Visit www.hottubparts.com or call 727.573.9611.

# Troubleshooting

If a problem arises, you can check this list for a quick solution. If this does not resolve your problem, please call our customer care center, at 727.573.9611. Additional information is also available at www.premiumleisure.com.

**Important** – Most problems can be quickly resolved by resetting the GFCI breaker. Try this first before proceeding.

| PROBLEM | CAUSE | SOLUTION |
|---|---|---|
| **Breaker trips** | Wiring error | Load Neutral wire not connected to GFCI (connected to Neutral bus) |
| | Wrong GFCI | GFCI breaker is wrong size |
| | Ozonator (or blower) wet | Remove tube from ozonator (or blower) and allow 2 days to dry out |
| **Foamy water** | Soaps, skin oils, or undissolved sanitizer particles | Close the air control valves and allow filtration cycle to run<br>Add defoamer<br>Drain and clean your hot tub<br>Clean or change filters<br>Rinse all bathing suits before bathing |
| **Leak** | Loose connection | Check and hand-tighten unions at heater & pumps, or clamps on jets |
| | Drain open | Close drain valve or replace cap |
| **Light doesn't work** | LED burnt out | Replace bulb |
| | Loose wire | Check wiring harness to LED |
| | Loose plug | Reseat J20 plug on hot tub pack |

| PROBLEM | CAUSE | SOLUTION |
|---|---|---|
| **Low/no jet pressure** | Air lock | Bleed air from the system. |
| | Dirty filter | Check and clean or replace filter |
| | Closed jets | Open all jets by turning CCW |
| | Closed valves | Open all T-handle shutoff valves on heater and pumps |
| | ACV open | Close air control valves |
| | Low water | Fill hot tub 1” above all jets |
| **Moved my hot tub and now it doesn’t work** | Wiring error at GFCI | Check Neutral wiring of GFCI |
| | No power to hot tub | Reset circuit breakers on GFCI panel and main circuit breaker panel |
| **Nothing works** | Breaker has tripped | Check and reset breaker. If problem persists, check for loose electrical connections. Check for Neutral wiring error at GFCI. |
| | Fuse blown | Check for blown Fuse 4 inside of spa pack. |
| **Pump not running** | No power to hot tub | Reset circuit breakers on GFCI panel and main circuit breaker panel |
| **Water does not flow** | Air lock | Bleed air from the system. |
| | Closed jets | Open all jets by turning counterclockwise |
| | ACV open | Close air control valves |
| **Water too hot** | High set temperature | Turn down set temperature on topside control panel |
| | High ambient temperature | Remove the cover |
| **Water will not heat** | Thermostat is set too low | Check and reset to desired temperature |
| | Air open | Close air control valve |
| | Dirty filter | Check and clean filter |
| | Blown fuse | Check and replace fuse |
| | Slide valve closed | Check and open all valves |
| | Cover off | Put the cover back on |
| | Hot tub in Economy mode | Press the Standby button and take out of Economy |

# Maintenance and Care

**Important –** The warranty on your hot tub and equipment depends on proper sanitation. In addition, the following maintenance procedures must be followed periodically.

## Cabinets

Your cabinet is made from a polymer that combines the durability of plastic with the beauty of simulated wood. To clean the cabinet, a mild soap and water solution easily removes residue.

## Cover

The 5-inch thick tapered cover on your hot tub is made from a weatherproof marine-grade vinyl. Your cover will last much longer if you heed the following suggestions:

1) Don't drag the cover on the ground; wearing of the vinyl could easily develop into a tear.
2) The insulating foam in your cover is not designed to hold the weight of a person or an animal.

   **Important –** Cracked foam in the cover is not covered under warranty! Do not stand on it.

3) Occasionally clean the inside of your cover with our special All Purpose Cleaner rinsed with warm water. (Using soap or vinyl cleaners on the inside of your cover causes foamy water.) Call our order line at 727.573.9611 to order our All Purpose Cleaner.
4) Our special Vinyl Cover Cleaner applied to the outside of the cover and stitching once yearly will keep your cover looking better longer. Call our order line at 727.573.9611 to order our special Vinyl Cover Cleaner.
5) Do not lift the cover by the safety straps, they are made to secure the tub to the cabinet and may tear.

## Draining and Refilling


**Drain Operation**

1) Turn off the GFCI breaker.
2) Remove hot tub cover and allow water to cool down.
3) Select a safe, suitable drainage area capable of safely assimilating 300 plus gallons of water that may contain unsanitary contaminants and chemical residue that could cause harm to plants or grass.
4) Locate drain valve at front of the hot tub. Hold the rear body to prevent it from turning, then loosen and remove the front cap.
5) Attach a garden hose to the exposed threads and route the hose downhill to your drainage area.
6) Twist the drain fitting 1/3 turn counterclockwise to unlock the drain valve and pull it outward to open completely. The water will drain by gravitational flow.
7) After the hot tub drains, perform steps 3-5 in reverse order to close the drain prior to refilling hot tub.
8) Attach the garden hose to a thoroughly-flushed pre-filter (not included, rinsed of all residual sediment) and refill your hot tub through the filtration canister.
9) After refilling, turn on the GFCI breaker to the hot tub.

If the pump runs but no water flows, bleed air from the system.

## Filters

The filters in your hot tub should be removed and cleaned every 2 weeks with our special Filter Cleanser and typically replaced every 4-6 months (depending upon use). You can clean your filters with the water pressure from the end of a garden hose then rinsed with warm water. This ensures that the water is being filtered properly.

DO NOT USE BLEACH. We recommend having replacement filters on hand that can be swapped between cleanings. Doing so enables you to quickly exchange the dirty filters with clean ones and immediately start

your hot tub again. Call our order line at 727.573.9611 to order replacement filters and our special Filter Cleanser.

## Jets

Remove and clean the jets as needed using our special Plumbing Cleanser, water, and a cloth or soft-bristled brush. Call our order line at 727.573.9611 to order our special Plumbing Cleanser.

## Light

Drain the hot tub and clean the light lens as needed using an optical cloth and an eyewear cleaning product specifically designed not to scratch optical surfaces. If the back side of the lens is also dirty remove the rear panel, remove the light from the holder, and clean in this same manner.

## Pillows

Remove and clean the headrest pillows as needed using our special All Purpose Cleaner and rinsed thoroughly with warm water. Call our order line at 727.573.9611 to order our special All Purpose Cleaner.

## Sanitation

Sanitation level is influenced by two factors:

1. Filter Cycle (filtration) time
2. How much you use your hot tub each week

If your water chemistry and water clarity are all proper and your sanitation level is still too low/high, you can adjust the sanitation intensity up/down by adding more/less sanitizer a little at a time and testing the water again after two days.

## Surface

The acrylic surface of your hot tub should be cleaned with recommended cleaners and thoroughly rinsed with warm (not cold) water before refilling. Call our order line at 727.573.9611 to order cleaners.

- ⚠ **Warning:** NEVER use paint solvents, acids,

acetone, benzene, lacquer thinner, tolulene, xylene, or similar chemicals to clean your hot tub shell.

## Water

Depending on usage, the water in your hot tub should be changed every 1-3 months. Upon each change of water it is a good practice to wipe down the hot tub.

# Shutdown / Winterizing

Your Fourteen Hundred hot tub is designed to operate year round. If you plan to leave your hot tub unused for long periods of time in severely cold weather, you should winterize your hot tub to avoid accidental freezing due to a power or equipment failure.

**We highly recommend that you have a hot tub professional winterize and restart your hot tub.**

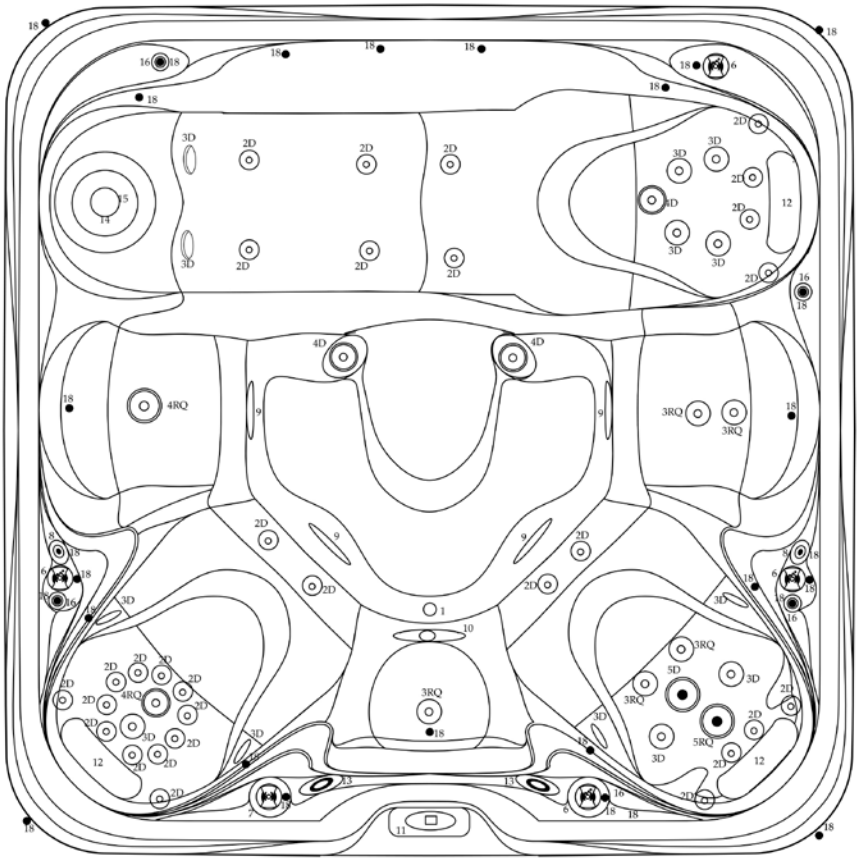
⚠ **WARNING:** Damage from improperly winterizing or restarting your hot tub is not covered under your warranty. You can call our customer care center, at 727.573.9611 for recommended service organizations to assist you in properly winterizing your hot tub.

# Glossary

| | |
|---|---|
| **Blower** | A heavy duty motor which aerates the water with millions of tiny bubbles throughout the hot tub providing soft tissue massage. |
| **Drain Bib** | A male garden-hose-style fitting to which a garden hose is connected for draining water. |
| **GFCI** | Ground Fault Circuit Interrupter. A special type of circuit breaker designed to shut power off if there is a leak of electricity detected in the hot tub equipment. |
| **Ionizer** | See *Ozonator*. |
| **Jet** | A plumbing device that directs pressurized air and/or water to desired areas of a hot tub. |
| **Ozonator** | An electronic unit designed to purify and destroy algae, bacteria, mold, and viruses while prolonging equipment life. |
| **Ozone ($O_3$)** | Produced by an Ozonator, Ozone is a form of oxygen ($O_2$) and is a powerful oxidizing agent used to destroy organic waste and byproducts and help in the control of algae and bacteria. Ozone is not a stand-alone sanitizer. |
| **pH** | The scientific scale for measuring Hydrogen Ion concentration (0 to 14) that shows the acid/alkaline content in water. |
| **Pump** | The electrical component that keeps water moving throughout the entire circulation system. |
| **RCD** | Residual Current Device (European models). A special type of circuit breaker designed to shut power off if there is a leak of electricity detected in the hot tub equipment. |
| **Spa Pack** | The main control box that operates the electrical systems within the hot tub. |
| **Topside Control** | The user-interface panel that connects to the control box and controls various hot tub functions such as jet pumps and heater. |

# Specifications

## FH 755 (Model 1411)

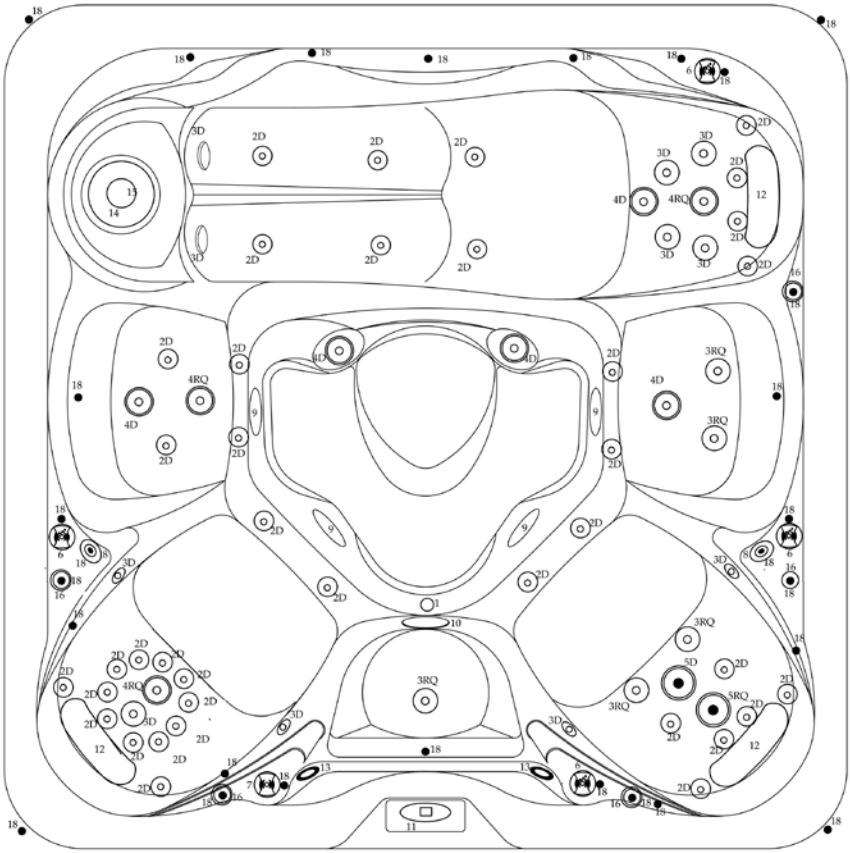


**Specifications***

| Spa Spec | |
|---|---|
| Spa Model | FH755(1411FH) |
| Spa Dimension | 84"x84"x36" |
| Number Of Seats | 5 (Lounge) |
| Water Jets | 55 |
| Air Jets | 0 |
| Water Capacity (USG/L) | 343/1298 |
| Dry Weight (LBS/KG) | 840/380 |
| Filled Weight (LBS/KG) | 3699/1678 |
| Electrical Rating (VAC/AMP/HZ) | 240/50/60 |
| GFCI (AMP) | 60 |

| 1411 Call-Outs | | | | |
|---|---|---|---|---|
| *Label* | *Part#* | *Description* | *Qty.* | *Notes* |
| 1 | 7818, 7379 | Floor Drain/Wall fitting (Gr), Drain Valve, Economy | 1+1 | |
| 2D | 29520-011-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 30 | |
| 2R | 29520-021-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Roto (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 3D | 29530-111-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 13 | |
| 3RQ | 29530-101-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, 4-roto (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 5 | |
| 4D | 29540-011-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 3 | |
| 4RQ | 29540-101-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, 4-Roto(SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 2 | |
| 5D | 29550-011-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Roto(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 5RQ | 29550-101-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, 4- Roto(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 5M | 29550-041-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Mass.(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 6 | 25059-101-000, 25090-089-200 | 1" Air Control, Halo, GP/Sil/GP with LED bezel | 4 | |
| 7 | 25056-111-000, 25030-089-200 | 1" On-Off Control, Halo, GP/Sil/GP with LED bezel | 1 | |
| 8 | 25269-602-700 | Laminar spa fontain, Halo | 2 | |
| 9 | 640-3789GADSGV | Suction VGB (Gr) | 4 | |
| 10 | 1219 | Light Kit 5" | 1 | |
| 11 | 50390-04 | SPA TOUCH | 1 | |
| 12 | 3137 | Pillow | 3 | |
| 13 | 3135 | 2.5" Speaker Round | 2 | |
| 14 | 1298 | Elite skim filter(Gr) | 1 | |
| 15 | 1298-A | 50 sq. ft. Cartridge Filter | 1 | |
| 16 | 25241-507-800 | Led Deco Cup Holder | 4 | |
| 17 | | | | |
| 18 | 1310A, 1315, 1312A, 1311A, 25234-000-000, 25243-600-000 | LED controller, 9LED light, 6-LED spyder, 4-LED spyder, 1/2" spot light, mini cabinet oval light | 1/1/4/1/12/4 | |
| N/A | 3721621-OV, CA1446HD | 2 Speed Pump; 6' cord | 1 | |
| N/A | 3711621-OV, CA1436HD | 1 Speed Pump; 6' cord | 1 | |
| N/A | 56713 | BP501X | 1 | |
| N/A | 5071, 7399 | Ozonator, Injector, | 1 | |
| N/A | 7636, 7876B | Owner's Manual, insert | 1 | |
| N/A | 7988 | Spa Cover (84-1/2"x84-1/2"x R10) | 1 | |
| N/A | 59019-01, CS-P80, 25717, 6058U | BBAV, Pass. Sub., CABLE ADAPTER, PS | 1 | |
| N/A | 50350-03 | WI-FI MODULE | 1 | OPTION |

## FH 864 (Model 1412)

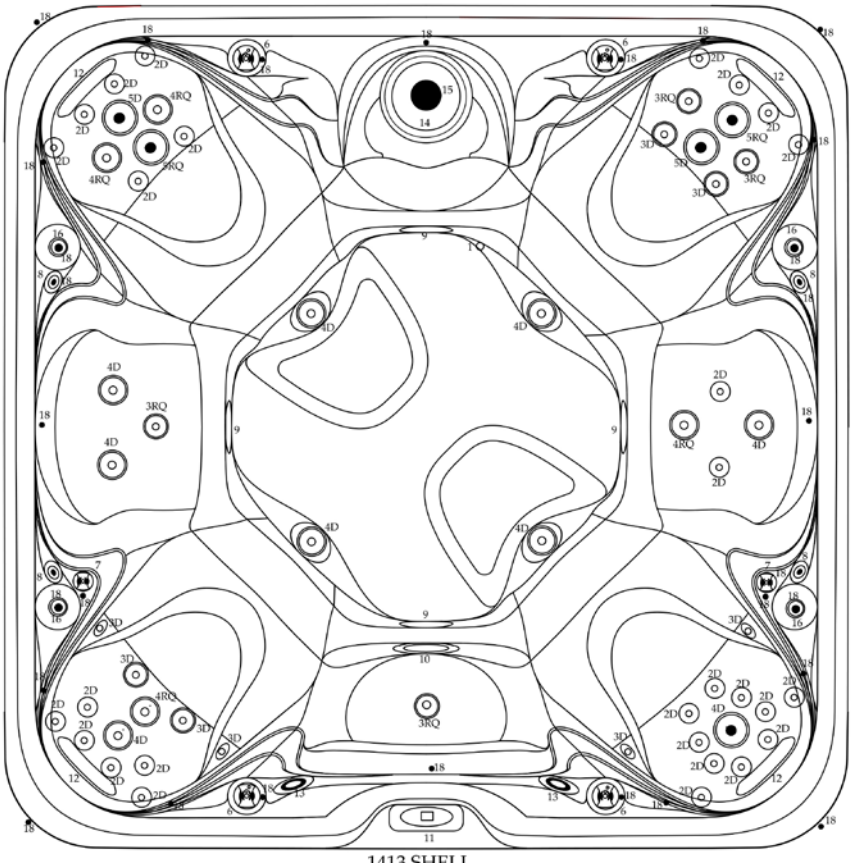


### Specifications*

| Spa Spec | |
|---|---|
| Spa Model | FH864(1412FH) |
| Spa Dimension | 91"x91"x36" |
| Number Of Seats | 6 (Lounge) |
| Water Jets | 64 |
| Air Jets | 0 |
| Water Capacity (USG/L) | 405/1533 |
| Dry Weight (LBS/KG) | 925/420 |
| Filled Weight (LBS/KG) | 4306/1953 |
| Electrical Rating (VAC/AMP/HZ) | 240/50/60 |
| GFCI (AMP) | 60 |

| 1412 Call-Outs | | | | |
|---|---|---|---|---|
| *Label* | *Part#* | *Description* | *Qty.* | *Notes* |
| 1 | 7818, 7379 | Floor Drain/Wall fitting (Gr), Drain Valve, Economy | 1+1 | |
| 2D | 29520-011-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Dir. (SS/Slw/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 38 | |
| 2R | 29520-021-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Roto (SS/Slw/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 3D | 29530-111-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, Dir. (SS/Slw/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 11 | |
| 3RQ | 29530-101-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, 4-roto (SS/Slw/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 5 | |
| 4D | 29540-011-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, Dir. (SS/Slw/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 5 | |
| 4RQ | 29540-101-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, 4-Roto(SS/Slw/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 3 | |
| 5D | 29550-011-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Roto(SS/Slw/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 5RQ | 29550-101-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, 4- Roto(SS/Slw/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 5M | 29550-041-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Mass.(SS/Slw/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 6 | 25059-101-000, 25090-089-200 | 1" Air Control, Halo, GP/Sil/GP with LED bezel | 4 | |
| 7 | 25056-111-000, 25030-089-200 | 1" On-Off Control, Halo, GP/Sil/GP with LED bezel | 1 | |
| 8 | 25269-602-700 | Laminar spa fontain, Halo | 2 | |
| 9 | 640-3789GADSGV | Suction VGB (Gr) | 4 | |
| 10 | 1219 | Light Kit 5" | 1 | |
| 11 | 50390-04 | SPA TOUCH | 1 | |
| 12 | 3137 | Pillow | 3 | |
| 13 | 3135 | 2.5" Speaker Round | 2 | |
| 14 | 1298 | Elite skim filter(Gr) | 1 | |
| 15 | 1298-A | 50 sq. ft. Cartridge Filter | 1 | |
| 16 | 25241-507-800 | Led Deco Cup Holder | 5 | |
| 17 | | | | |
| 18 | 1310A, 1315, 1312A, 1311A, 25234-000-000, 25243-600-000 | LED controller, 9LED light, 6LED spyder, 4LED spyder, 1/2" spot light, mini cabinet oval light | 1/1/4/1/12/4 | |
| N/A | 3721621, CA1446HD | 2 Speed pump, 6' cord ; | 1 | |
| N/A | 3711621, CA1436HD | 1 Speed pump, 6' cord ; | 1 | |
| N/A | 56713 | BP501X | 1 | |
| N/A | 5071, 7399 | Ozonator, Injector, | 1 | |
| N/A | 7636, 7876A | Owner's Manual, insert | 1 | |
| N/A | 7988 | Spa Cover (91-1/2"x91-1/2"x R10) | 1 | |
| N/A | 59019-01, CS-P80, 25717, 6058U | BBAV, Passive Sub. w. harness, ADAPTER CABLE, PS | 1 | |
| N/A | 50350-03 | WI-FI MODULE | 1 | OPTION |

## FH 857 (Model 1413)

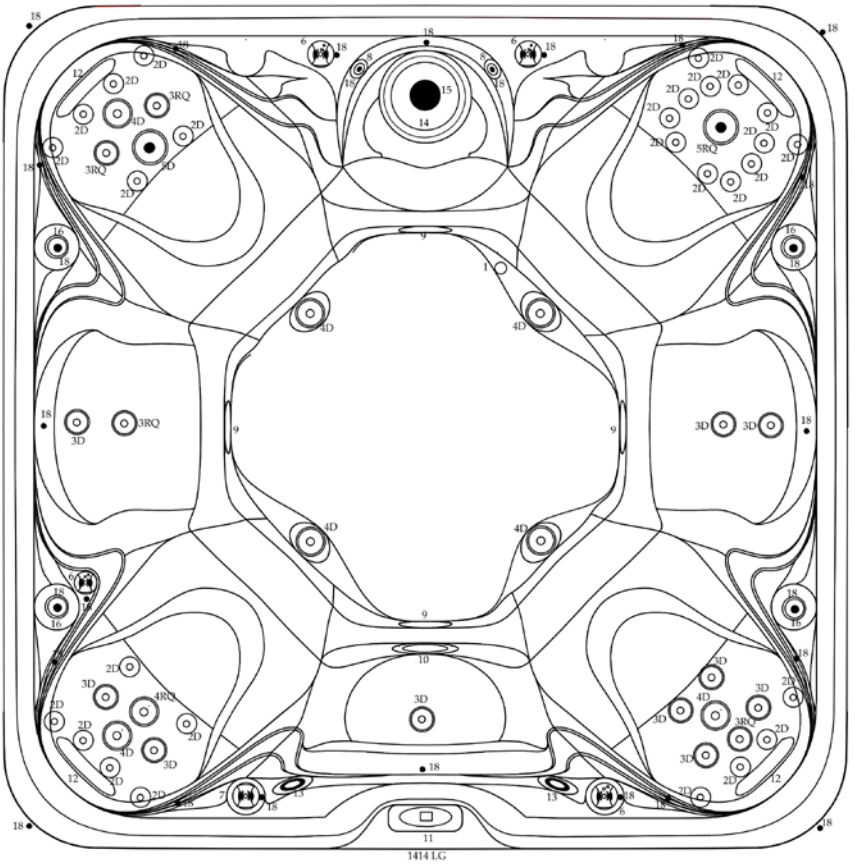


### Specifications*

| Spa Spec | |
|---|---|
| Spa Model | FH857(1413FH) |
| Spa Dimension | 91"x91"x36" |
| Number Of Seats | 7 |
| Water Jets | 57 |
| Air Jets | 0 |
| Water Capacity (USG/L) | 415/1572 |
| Dry Weight (LBS/KG) | 925/420 |
| Filled Weight (LBS/KG) | 4392/1992 |
| Electrical Rating (VAC/AMP/HZ) | 240/50/60 |
| GFCI (AMP) | 60 |

| 1413 Call-Outs | | | | |
|---|---|---|---|---|
| *Label* | *Part#* | *Description* | *Qty.* | *Notes* |
| 1 | 7818, 7379 | Floor Drain/Wall fitting (Gr), Drain Valve, Economy | 1+1 | *W.F only w.OZONE* |
| 2D | 29520-011-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 28 | |
| 2R | 29520-021-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Roto (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 3D | 29530-111-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 8 | |
| 3RQ | 29530-101-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, 4-roto (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 4 | |
| 4D | 29540-011-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 9 | |
| 4RQ | 29540-101-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, 4-Roto(SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 4 | |
| 5D | 29550-011-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Roto(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 2 | |
| 5RQ | 29550-101-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, 4- Roto(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 2 | |
| 5M | 29550-041-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Mass.(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 6 | 25059-101-000, 25090-089-200 | 1" Air Control, Halo, GP/Sil/GP with LED bezel | 4 | |
| 7 | 25056-111-000, 25030-089-200 | 1" On-Off Control, Halo, GP/Sil/GP with LED bezel | 2 | |
| 8 | 25269-602-700 | Laminar spa fontain, Halo | 4 | |
| 9 | 640-3789GADSGV | Suction VGB (Gr) | 4 | |
| 10 | 1219 | Light Kit 5" | 1 | |
| 11 | 50390-04 | SPA TOUCH | 1 | |
| 12 | 3137 | Pillow | 4 | |
| 13 | 3135 | 2.5" Speaker Round | 2 | |
| 14 | 1298 | Elite skim filter(Gr) | 1 | |
| 15 | 1298-A | 50 sq. ft. Cartridge Filter | 1 | |
| 16 | 25241-507-800 | Led Deco Cup Holder | 4 | |
| 17 | | | | |
| 18 | 1310A, 1315, 1312A, 1311A, 25234-000-000, 25243-600-000 | LED controller, 9LED light, 6LED spyder, 4LED spyder, 1/2" spot light, mini cabinet oval light | 1/1/4/1/12/4 | |
| N/A | 3721621OV, CA1446HD | 2 Speed pump, 6' cord ; | 1 | |
| N/A | 3711621OV, CA1436HD | 1 Speed pump, 6' cord ; | 1 | |
| N/A | 56713 | BP501X | 1 | |
| N/A | 5071, 7399 | Ozonator, Injector, | 1 | |
| N/A | 7636, 7876B | Owner's Manual, insert | 1 | |
| N/A | 7988 | Spa Cover (91-1/2"x91-1/2"x R10) | 1 | |
| N/A | 59019-01, CS-P80, 25717, 6058U | BBAV, passive sub. w. harness,, CABLE ADAPTER, PS | 1 | |
| N/A | 0605-300003 | WI-FI MODULE | 1 | OPTION |

## FH 752 (Model 1414)

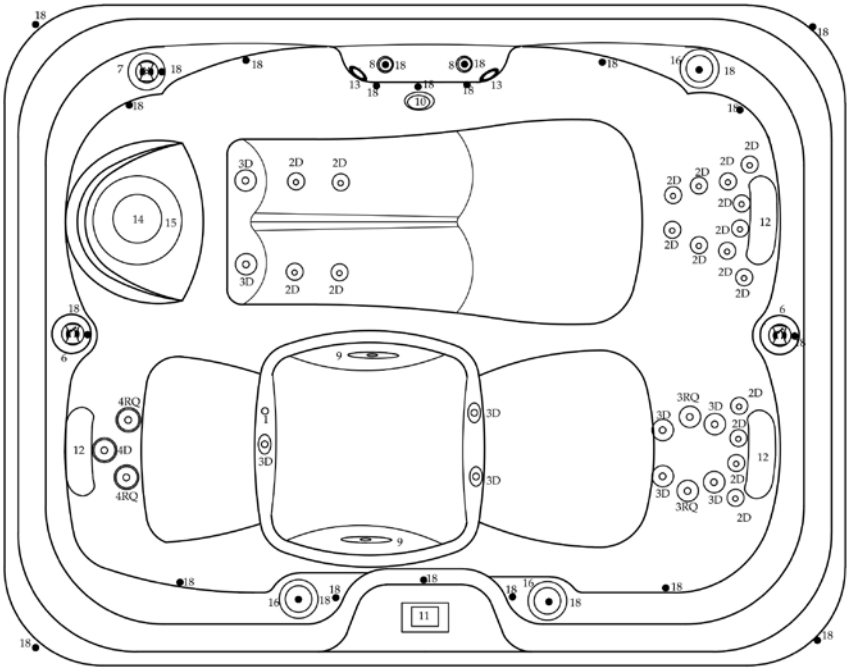



### Specifications*

| Spa Spec | |
|---|---|
| Spa Model | FH752(1414FH) |
| Spa Dimension | 84"x84"x36" |
| Number Of Seats | 7 |
| Water Jets | 52 |
| Air Jets | 0 |
| Water Capacity (USG/L) | 335/1268 |
| Dry Weight (LBS/KG) | 850/386 |
| Filled Weight (LBS/KG) | 3647/1654 |
| Electrical Rating (VAC/AMP/HZ) | 240/50/60 |
| GFCI (AMP) | 60 |

| 1414- UN Call-Outs | | | | |
|---|---|---|---|---|
| *Label* | *Part#* | *Description* | *Qty.* | *Notes* |
| 1 | 7818, 7379 | Floor Drain/Wall fitting (Gr), Drain Valve, Economy | 1+1 | |
| 2D | 29520-011-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 28 | |
| 2R | 29520-021-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Roto (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 3D | 29530-111-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 10 | |
| 3RQ | 29530-101-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, 4-roto (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 4 | |
| 4D | 29540-011-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 7 | |
| 4RQ | 29540-101-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, 4-Roto(SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 5D | 29550-011-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Roto(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 5RQ | 29550-101-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, 4- Roto(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 5M | 29550-041-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Mass.(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 6 | 25059-101-000, 25090-089-200 | 1" Air Control, Halo, GP/Sil/GP with LED bezel | 4 | |
| 7 | 25056-111-000, 25030-089-200 | 1" On-Off Control, Halo, GP/Sil/GP with LED bezel | 1 | |
| 8 | 25269-602-700 | Laminar spa fontain, Halo | 2 | |
| 9 | 640-3789GADSGV | Suction VGB (Gr) | 4 | |
| 10 | 1219 | Light Kit 5" | 1 | |
| 11 | 50391-04 | Spa Touch | 1 | |
| 12 | 3137 | Pillow | 4 | |
| 13 | 3135 | 2.5" Speaker Round | 2 | |
| 14 | 1298 | Elite skim filter(Gr) | 1 | |
| 15 | 1298-A | 50 sq. ft. Cartridge Filter | 1 | |
| 16 | 25241-507-800 | Led Deco Cup Holder | 4 | |
| 17 | | | | |
| 18 | 1310A, 1315, 1312A, 1311A, 25234-000-000, 25243-600-000 | LED controller, 9LED light, 6LED spyder, 4LED spyder, 1/2" spot light, mini cabinet oval light | 1/1/4/1/12 /4 | |
| N/A | 3721621-OV | 2 Speed pump; 6' cord ; | 1 | |
| N/A | 3711621-OV | 1 Speed pump; 6' cord ; | 1 | |
| N/A | 56713 | BP501X | 1 | |
| N/A | 5071, 7399 | Ozonator, Injector, | 1 | |
| N/A | 7636, 7876A | Owner's Manual, insert | 1 | |
| N/A | 7988 | Spa Cover (84-1/2"x84-1/2"x R10) | 1 | |
| N/A | 59019-01, CS-P80, 25717, 6058U | BBAV ampl., Passive Sub. w. harness, Adapter cable, Power supply 12vdc | 1 | |
| N/A | 50350-03 | Wi-Fi | 1 | OPTION |

## FH 632 (Model 1415)

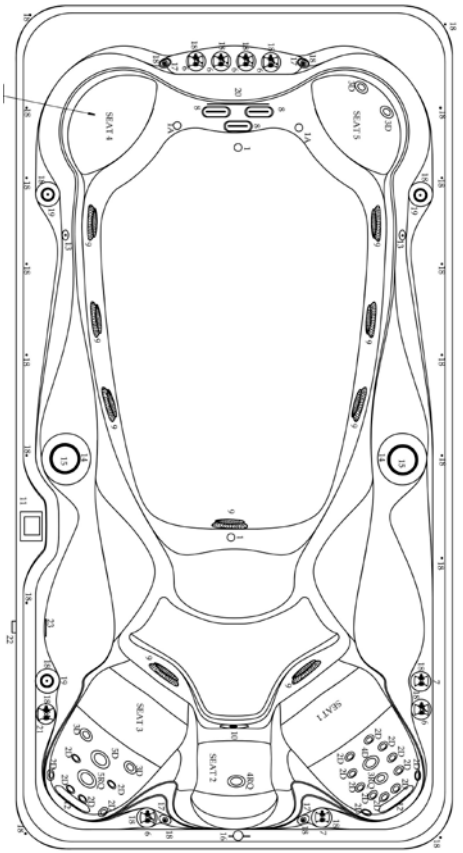


### Specifications*

| Spa Spec | |
|---|---|
| Spa Model | FH632(1415FH) |
| Spa Dimension | 84"x66"x34" |
| Number Of Seats | 3 |
| Water Jets | 32 |
| Air Jets | 0 |
| Water Capacity (USG/L) | 235/890 |
| Dry Weight (LBS/KG) | 500/227 |
| Filled Weight (LBS/KG) | 2462/1117 |
| Electrical Rating (VAC/AMP/HZ) | 240/40/60 |
| GFCI (AMP) | 50 |

| 1415 Call-Outs | | | | |
|---|---|---|---|---|
| *Label* | *Part#* | *Description* | *Qty.* | *Notes* |
| 1 | 7818, 7379 | Floor Drain/Wall fitting (Gr), Drain Valve, Economy | 1+1 | |
| 2D | 29520-011-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 18 | |
| 2R | 29520-021-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Roto (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 3D | 29530-111-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 9 | |
| 3RQ | 29530-101-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, 4-roto (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 2 | |
| 4D | 29540-011-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 4RQ | 29540-101-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, 4-Roto(SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 2 | |
| 5D | 29550-011-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Roto(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 5RQ | 29550-101-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, 4- Roto(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 5M | 29550-041-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Mass (SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 6 | 25059-101-000, 25090-089-200 | 1" Air Control, Halo, GP/Sil/GP with LED bezel | 2 | |
| 7 | 25056-111-000, 25030-089-200 | 1" On-Off Control, Halo, GP/Sil/GP with LED bezel | 1 | |
| 8 | 25269-602-700 | Laminar spa fontain, Halo | 2 | |
| 9 | 640-3789GADSGV | Suction VGB (Gr) | 2 | |
| 10 | 1219 | Light Kit 5" | 1 | |
| 11 | 50390-04 | SPA TOUCH | 1 | |
| 12 | 3137 | Pillow | 3 | |
| 13 | 3135 | 2.5" Speaker Round | 2 | |
| 14 | 1298 | Elite skim filter(Gr) | 1 | |
| 15 | 1298-A | 50 sq. ft. Cartridge Filter | 1 | |
| 16 | 25241-507-800 | Led Deco Cup Holder | 3 | |
| 17 | | | | |
| 18 | 1310A, 1315, 1312A,1311A, 35234-000-000, 25243-600-000 | LED controller, 9LED light, 6LED spyder, 4LED spyder, 1/2" spot light, mini cabinet oval light | 1/1/3/2/12/4 | |
| N/A | 3721621OV, CA1446HD | 2 Speed pump; 6' cord ; | 1 | |
| N/A | 3711621OV, CA1436HD | 1 Speed pump; 6' cord ; | 0 | |
| N/A | 56713 | BP501X | 1 | |
| N/A | 5071, 7399 | Ozonator, Injector, | 1 | |
| N/A | 7636, 7876B | Owner's Manual, INSERT | 1 | |
| N/A | xxxx | Spa Cover (84-1/2"x66-1/2"x R10) | 1 | |
| N/A | 59019-01, CS-P80, 25717, 6058U | BBAV, Passive Sub. w. harness, Cable adapter, PS | 1 | |
| N/A | 50350-03 | Wi-Fi MODULE | 1 | OPTION |

## FH 14 (Model 1416)




### Specifications*

| Spa Spec | |
|---|---|
| Spa Model | FH14/1416FH |
| Spa Dimension | 89"x172"x51" |
| Number Of Seats | 6 |
| Water Jets | 33 |
| Air Jets | 0 |
| Water Capacity (USG/L) | 1500/5678 |
| Dry Weight (LBS/KG) | 2300/1043 |
| Filled Weight (LBS/KG) | 14818/6721 |
| Electrical Rating (VAC/AMP/HZ) | 240/48/60 |
| GFCI (AMP) | 60 |

| 1416 Call-Outs | | | | |
|---|---|---|---|---|
| *Label* | *Part#* | *Description* | *Qty.* | *Notes* |
| 1 | 7399W | Nozzle Wall fitting (Gr) | 2 | |
| 1A | 7818, 7379 | Wall fitting (Gr) | 2 | |
| 2D | 29520-011-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 18 | |
| 2R | 29520-021-500, 1276, 29222-289-300 | 2" PrLc Jet Int(Hlo, Roto (SS/Slv/GpGyGpGy); 200s Typhon Jet body Compensator Ring, 200s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 3D | 29530-111-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 8 | |
| 3RQ | 29530-101-500, 1282, 29232-289-200 | 3" PrLc Jet Int(Hlo, 4-roto (SS/Slv/GpGyGpGy); 300s Typhon Jet body Compensator Ring, 300s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 4D | 29540-011-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, Dir. (SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 4RQ | 29540-101-500, 1287, 29242-289-200 | 4-1/2" PrLc Jet Int(Hlo, 4-Roto(SS/Slv/GpGyGpGy); 400s Typhon Jet body Compensator Ring, 400s LED TwLk Body (3/4"sbx3/8"sb) | 1 | |
| 5D | 29550-011-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Dir(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 2 | |
| 5RQ | 29550-101-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, 4- Roto(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 2 | |
| 5M | 29550-041-500, 1292, 29252-289-200 | 5" PrLc Jet Int(Hlo, Mass.(SS/Slv/GpGyGpGy); 500s Typhon Jet body Compensator Ring, 500s LED TwLk Body (3/4"sbx3/8"sb) | 0 | |
| 6 | 25059-101-000, 25090-089-200 | 1" Air Control, Halo, GP/Sil/GP with LED bezel | 6 | |
| 7 | 25056-111-000, 25030-089-200 | 1" On-Off Control, Halo, GP/Sil/GP with LED bezel | 2 | |
| 8 | 210-5109-DSGS | River Jets | 3 | |
| 9 | 640-3789GADSGV | Suction VGB (Gr) | 9 | |
| 10 | 1219S | Light Kit 5" | 1 | |
| 11 | 50391-04 | SPA TOUCH | 1 | |
| 12 | 3137 | Pillow | 2 | |
| 13 | 3135 | 2.5" Speaker Round | 2 | |
| 14 | 25353-097-000 | Elite skim filter(Gr) | 2 | |
| 15 | 1298-A | 50 sq. ft. Cartridge Filter | 2 | |
| 16 | 7017, 7018, 1307 | Tether, plates, row machine w. hardware | 0 | OPTION |
| 17 | 25269-602-700 | Laminar spa fontain, Halo | 4 | |
| 18 | 1310A, 1315, 1312A, 1311A, 25234-000-000, 25243-600-000 | LED controller, 9LED light, 6LED spyder, 4LED spyder, 1/2" spot light, mini cabinet oval light | 1/1/5/1/12 /4 | |
| 19 | 25241-507-800 | Led Deco Cup Holder | 3 | |
| 20 | 5457 | 12" Hand rail | 1 | |
| 21 | 25058-300-000, 25048-089-200 | 2" Div-r valve, Halo, GP/Sil/GP with LED bezel | 1 | |
| 22 | 25058-300-000, 25048-089-200 | Drain-valve Assy w. adapters | 1 | |
| 23 | 5456 | 6" Hand rail | 1 | |
| N/A | 3721621OV, CA1446HD | 2 Speed pump; 6' cord ; | 1 | |
| N/A | 3711621OV, 300050168 | 1 Speed pump; 14' cord ; | 3 | |
| N/A | 1030120, CA1436HD | 1 Speed circulation pump; 6' cord ; | 1 | |
| N/A | 56721 | BP2000X | 1 | |
| N/A | 5071, 7399 | Ozonator, Injector, | 2 | |
| N/A | 7636, 7876B | Owner's Manual, insert | 1 | |
| N/A | 7988 | Spa Cover (84-1/2"x84-1/2"x R10) | 1 | |
| N/A | 59019-01, CSP80, 25717, 6058U | BBAV, Passive Sub. w. harness, Cable adapter, PS | 1 | |
| N/A | 0605-300003 | In.clear-AMP | 0 | OPTION |
| N/A | 50350-03 | WI-FI module | 1 | OPTION |

# Conditions of Warranties

All limited warranties provided here under extend only to the original consumer/purchaser of the hot tub if purchased and installed within the boundaries of the United States or Canada and terminate upon transfer of ownership from original consumer/purchaser.

The warranties will not include any:

- Shipping cost and/or taxes incurred.
- Cost of repair or parts incurred by a non-factory-authorized agent.
- Damage due to improper pH Levels.
- Damage due to improper sanitation levels.
- Damage due to shorted heater elements.
- Corrosion at jets.
- Deterioration of pillows, filter lid, filters, any seals and gaskets.

**Note:** Fourteen Hundred Spas must receive written notification within 10 days if the original consumer/purchaser plans to relocate the hot tub to a site other than the address on file.

## Customer Expectations

Your hot tub comes with technical support and after sales care. For the life of your hot tub, trained and certified technical product support specialists are available even after your warranty has been exhausted. Most service inquiries can be answered by referring to your owner's manual, accessing the website or calling a customer care representative at 727.573.9611.

**Call 727.573.9611 for specific warranty details.**

# Warranty

**Lifetime Spa Structural Warranty**
Fourteen Hundred Spas warrants the Fourteen Hundred spa shell structure against the loss of water through the fiberglass laminate of the shell caused by defects in materials and workmanship for as long as the original purchaser owns the spa. Contact manufacturer if you have any questions concerning warranty issues.

**Five (5) Year – Spa Surface Warranty**

Fourteen Hundred Spas Warrants the interior acrylic spa surface against blisters, cracks, or delaminating resulting from a defect in the acrylic surface material for a period of five (5) years from the date of purchase, based on the following formula: Suggested retail price divided by months covered (60), multiplied by months owned plus shipping = replacement cost.

**Lifetime Manifold Plumbing Parts Warranty**
Fourteen Hundred Spas warrants the plumbing manifolds, fittings, and parts to be free of defects in materials or workmanship for *as long as the original purchaser owns the spa*.

**Two (2) Year – Limited Spa Equipment Warranty**
Fourteen Hundred Spas warrants the electrical equipment and components to be free of defects in materials and workmanship for a period of two (2) years on major spa components (electrical system, spa controls, and motors) and two (2) years authorized field service on these items. Ninety (90) day (Parts ONLY) Limited Warranty on all optional accessory items (optional cabinets, fixtures, trim kits, skirts, CD & MP3 players, all other music and video devices, ozone, waterfall assembly, LED lighting, etc.). All perishable, cosmetic or owner serviceable items, light bulb, light lenses, fuses, headrests, cabinet, filters, cover-lift, spa drain, jet inserts, etc. are warranted to be free of defects in materials and workmanship at the time of delivery. These items may be covered by a manufacturer's warranty. The spa cover is NOT covered under this Pinnacle Spas Limited Warranty, but may carry an original manufacturer's warranty. Fourteen Hundred Spas may serve as an agent in presenting claims under the manufacturers' warranties, but disclaims any liability there under. In the event Fourteen Hundred Spas provides parts to replace an alleged defective part under warranty owner will be billed for the cost thereof and credited, minus freight, upon both the defective part being returned to Fourteen Hundred Spas and the manufacturer of said part accepting warranty claim.

**Warranty Performance**
In the event of a suspected defect, under the terms of this Limited Warranty, notify manufacturer. Use all reasonable means to protect the spa from further damage. A service representative will provide the technical labor only, to affect the repair subject to the terms and conditions contained in this Limited Warranty. The service representative may assess reasonable travel charges. Visits to simply diagnose, troubleshoot, or inspect problems are not covered under this Limited Warranty. If we determine that repairs are not feasible due to functional defect, we reserve the right to provide a replacement part or spa in lieu of repair. We will replace with a part of value equal to the original purchase. In such event, owner is responsible for expenses including removal, shipping, and re-installation of the existing or replacement hot tub. The replacement spa or part will carry the balance of the original spa's warranty, if any. Either party's waiver of any breach or failure to enforce any of the terms or conditions of the warranty shall not in any way affect, limit or waive such party's right at any time to enforce strict compliance with every term and condition thereof.

**Limitations and Exclusions**
This Limited Warranty applies to spas sold after January 1, 2015. This Limited Warranty takes effect from the date the unit was originally purchased or six months from the date of manufacture whichever comes first. This Limited Warranty applies only to the Original Purchaser and terminates with any transfer of ownership. This Limited Warranty does not apply to a spa used for any commercial, rental, club purposes or for any spa used outside of the United States. The purchaser must establish the date of purchase by dated sales invoice of delivery receipt.

This Limited Warranty does not cover damage resulting from abuse, misuse, or neglect including any installation, operation, maintenance or use of the spa other than in accordance with the Owner's Manual of the spa. Damage caused by operation of the spa at water temperatures outside the range of 32 degrees F. and 120 degrees F., damage caused by dirty, clogged, or calcified filter cartridges, damage to the spa surface caused by improper use of chemicals or cleaning agents, allowing un-dissolved spa sanitizing chemicals to lie on the surface, damage caused by improper pH balance or other improper water chemistry, damage caused by failure to provide even and sufficient support for the spa, are considered abuses and may invalidate this Limited Warranty. Damaged caused by repairs or alterations performed by anyone other than an authorized service representative is not covered. Failure caused by accidents, acts of God, nonstructural normal wear and tear, cosmetic blemishes and other causes beyond our control are excluded.

The warranty is in lieu of all other warranties, expressed or implied, including implied warranties of merchantability and fitness for a particular purpose. In no event shall manufacturer be liable for incidental or consequential damages.

**DISCLAIMERS**
The spa owner is required to provide unencumbered access to the spa for any warranty repair or inspection. Manufacturer shall not be liable for loss of use of spa or other incidental or consequential costs, expenses or damages, which may include, but are not limited to water damage, or the removal of a permanent deck or other customer fixture. Under no circumstances shall we, or any of our representatives be held liable for injury to any person or damage to any property, however arising. This warranty gives you specific legal rights and you may have other rights. No service company, or other party is authorized to change, modify, or extend the terms of this Limited Warranty in any manner whatsoever. The jurisdiction and venue for any litigation arising with respect to the transaction evidenced by this warranty shall be the Circuit Court in and for Pinellas County, Florida and Buyer hereby agrees to such jurisdiction and venue.

Premium Leisure LLC
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727.573.9611

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