CalSpas®

LUXURY RESORT LIVING FOR EVERYONE

2016 Owner's Manual
Portable Spas

International - ENGLISH

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Cal Spas Home Resort™

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LTR20161001, Rev. F

CONTACT INFORMATION

For customer service, please contact your authorized dealer immediately. If you need additional information and/ or assistance, please contact:

LMS Customer Service Department
1462 East Ninth Street
Pomona, CA 91766.

Phone: 1-909-623-8781
Fax: 1-909-629-3890

READ AND FOLLOW ALL INSTRUCTIONS.

DANGER -- Risk of accidental drowning:

Do not allow children to be in or around a spa unless a responsible adult supervises them. Keep the spa cover on and locked when not in use. See instructions enclosed with your cover for locking procedures.

DANGER -- Risk of injury:

The 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 the flow rates are compatible.

Never operate the spa if the suction fitting or filter baskets are broken or missing. Never replace a suction fitting with one that is rated less than the flow rate marked on the original suction fitting.

DANGER -- Risk of electric shock:

Install the spa at least 1.5 meters from all metal surfaces. As an alternative, a spa may be installed within 5 feet of metal surfaces if each metal surface is permanently bonded by a minimum #8 AWG solid copper conductor to the outside of the spa's control box.

Do not permit any external electrical appliances, such as lights, telephones, radios, televisions, and etc., within five feet of the spa. Never attempt to operate any electrical device from inside the spa.

Replace a damaged power cord immediately.

Do not bury the power cord.

Connect to a grounded, grounding-type receptacle only.

WARNING -- To reduce the risk of injury:

The spa water should never exceed 40°C (104°F). Water temperatures between 38°C and 40°C (100°F and 104°F) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.

High water temperatures have a high potential for causing fetal damage during pregnancy. Women who are pregnant, or who think they are pregnant, should always check with their physician prior to spa usage.

The use of alcohol, drugs or medication before or during spa use may lead to unconsciousness, with the possibility of drowning.

Persons suffering from obesity, a medical history of heart disease, low or high blood pressure, circulatory system problems or diabetes should consult a physician before using the spa.

Persons using medications should consult a physician before using the spa since some medications may induce drowsiness while others may affect heart rate, blood pressure and circulation.

HYPERTHERMIA DANGER:

Prolonged exposure to hot air or water can induce hyperthermia. Hyperthermia occurs when the internal temperature of the body reaches a level 2°C to 4°C (1°C to 2°C) above the normal body temperature of 37°C (98.6°F). While hyperthermia has many health benefits, it is important not to allow your body's core temperature to rise above 39.5°C (103°F).

Symptoms of excessive hyperthermia include dizziness, lethargy, drowsiness and fainting. The effects of excessive hyperthermia may include:

- Failure to perceive heat
- Failure to recognize the need to exit spa or hot tub
- Unawareness of impending hazard
- Fetal damage in pregnant women
- Physical inability to exit the spa
- Unconsciousness

WARNING: The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia.

WARNING: People with infectious diseases should not use a spa or hot tub.

WARNING: To avoid injury, exercise care when entering or exiting the spa or hot tub.

WARNING: Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning.

WARNING: Do not use a spa or hot tub immediately following strenuous exercise.

WARNING: Prolonged immersion in a spa or hot tub may be injurious to your health.

CAUTION: Maintain water chemistry in accordance with manufacturer's instructions.

SAVE THESE INSTRUCTIONS.

Pre-Delivery Checklist

Most cities and counties require permits for exterior construction and electrical circuits. In addition, some communities have codes requiring residential barriers such as fencing and/or self-closing gates on property to prevent unsupervised access to the property by children under the age of 5. Your dealer can provide information on which permits may be required and how to obtain them prior to the delivery of your spa.

For additional operating and installation information, please see your selling dealer.

Before Delivery	
	Plan your delivery route
	Choose a suitable location for the spa
	Lay a 5 - 8 cm concrete slab
	Install dedicated electrical supply
After Delivery	
	Place spa on slab
	Connect electrical components

Planning the Best Location

Safety First

Do not place your spa within 10 feet (3 m) of overhead power lines.

Consider How You Will Use Your Spa

How you intend to use your spa will help you determine where you should position it. For example, will you use your spa for recreational or therapeutic purposes? If your spa is mainly used for family recreation, be sure to leave plenty of room around it for activity. If you will use it for relaxation and therapy, you will probably want to create a specific mood around it.

Plan for Your Environment

If you live in a region where it snows in the winter or rains frequently, place the spa near a house entry. By doing this, you will have a place to change clothes and not be uncomfortable.

Consider Your Privacy

In a cold-weather climate, bare trees won't provide much privacy. Think of your spa's surroundings during all seasons to determine your best privacy options. Consider the view of your neighbors as well when you plan the location of your spa.

Provide a View with Your Spa

Think about the direction you will be facing when sitting in your spa. Do you have a special landscaped area in your yard that you find enjoyable? Perhaps there is an area that catches a soothing breeze during the day or a lovely sunset in the evening.

Keep Your Spa Clean

In planning your spa's location, consider a location where the path to and from the house can be kept clean and free of debris.

Prevent dirt and contaminants from being tracked into your spa by placing a foot mat at the spa's entrance where the bathers can clean their feet before entering your spa.

Allow for Service Access

Many people choose to install a decorative structure around their spa. If you are installing your spa with any type of structure on the outside, such as a gazebo, remember to allow access for service. It is always best to design special installations so that the spa can still be moved, or lifted off the ground.

Preparing for Your New Portable Spa

Preparing a Good Foundation

Your spa needs a solid and level foundation. The area that it sits on must be able to support the weight of the spa and the occupants who use it. If the foundation is inadequate, it may shift or settle after the spa is in place, causing stress that could damage your spa shell or finish.

Damage caused by inadequate or improper foundation support is not covered by the warranty. It is the responsibility of the spa owner to provide a proper foundation for the spa.

Place the spa on an elevated 10 cm concrete slab. Pavers, gravel, brick, sand, timbers or dirt foundations are not adequate to support the spa.

We strongly recommended that you have a qualified, licensed contractor prepare the foundation for your spa.

If you are installing the spa indoors, pay close attention to the flooring beneath it. Choose flooring that will not be damaged or stained.

If you are installing your spa on an elevated wood deck or other structure, it is highly recommended that you consult a structural engineer or contractor to ensure the structure will support the weight of 732 kg / m2 (150 lbs / ft2).

To properly identify the weight of your new spa when full, remember water weighs 1 kg per liter. For example, an average 2.4 meter (8 foot) spa holds approximately 1892 liters of water. Using this formula, you will find that the weight of the water alone is 1892 kg. Combined with the dry weight of the spa you will note that this spa will weigh approximately 2267 kg when full of water.

30 cm minimum distance from edge

230V / 50 Hz Electrical Installation

All 230V spas must be permanently connected (hard wired) to the power supply. These instructions describe the only acceptable electrical wiring procedure. Spas wired in any other way will void your warranty and may result in serious injury.

This is the only acceptable electrical wiring procedure. Spas wired in any other way will void your warranty. See the wiring requirements below and wiring diagrams on page 6 through page 11.

The electrical wiring of this spa must meet the requirements of any applicable local, state, and federal codes. The electrical circuit must be installed by an electrical contractor and approved by a local building / electrical inspector.

The power supplied to the spa must be on a dedicated RCD protected circuit with no other appliances or lights sharing the power.

Use copper wire with THHN insulation. Do not use aluminum wire.

Use the tables below to determine your RCD and wiring requirements.

When wires larger than #6 AWG are required, install a junction box near the spa and use #6 AWG wire between the junction box and the spa.

Wires that run over 25 meters must increase wire gauge to the next lower number. For example: A normal 50 amp RCD with three #8 AWG copper wires that run over 25 meters would require you to go to three #6 AWG copper wires.

RCD and Wiring Requirements

Note: SINGLE PHASE ONLY!

Three phase power requires 400V. Only use 230V.

Use this table to determine your wiring configuration.

Preparing for Your New Portable Spa

Diagram 1

ON ON ON ON ON

OFF OFF OFF OFF OFF

BROWN (Hot)

BLUE
(Neutral)

GREEN / YELLOW
(Ground)

BROWN
(Hot)

BLUE
(Neutral)

Test

0 OFF

BROWN
(Hot)

BLUE
(Neutral)

GREEN / YELLOW
(Ground)
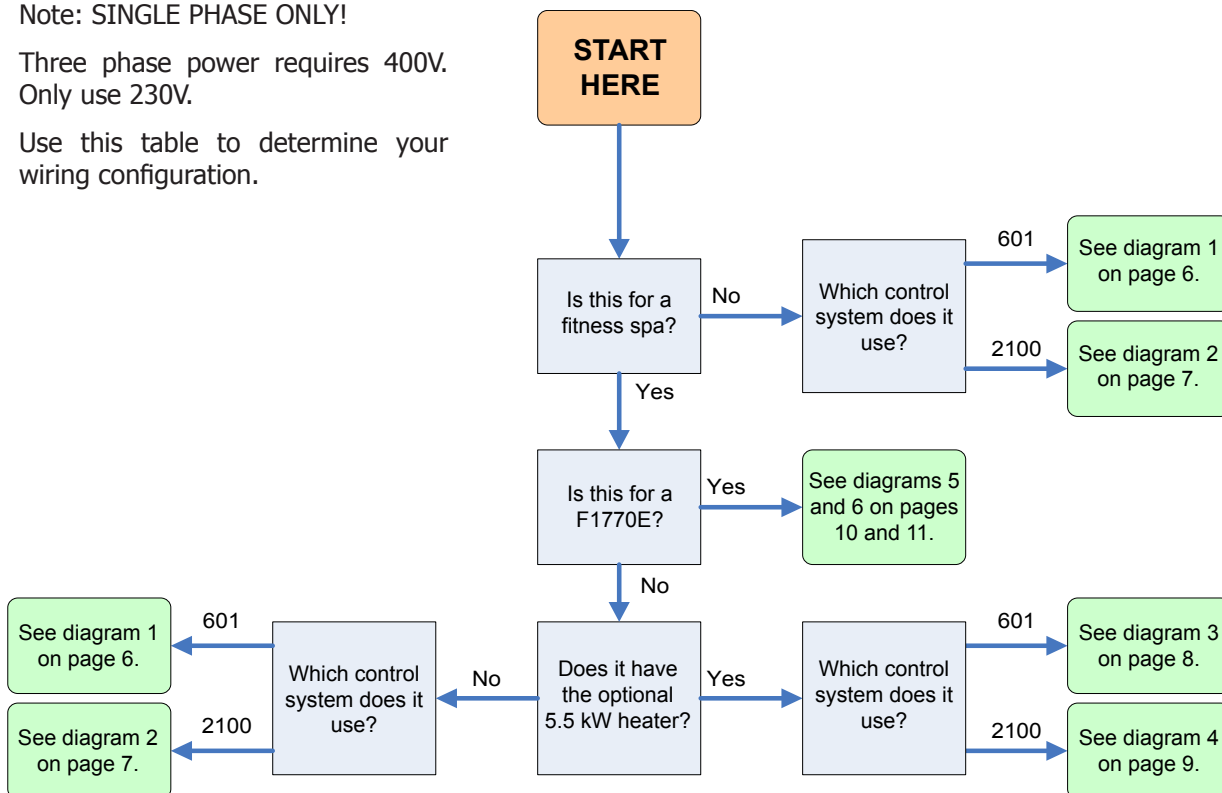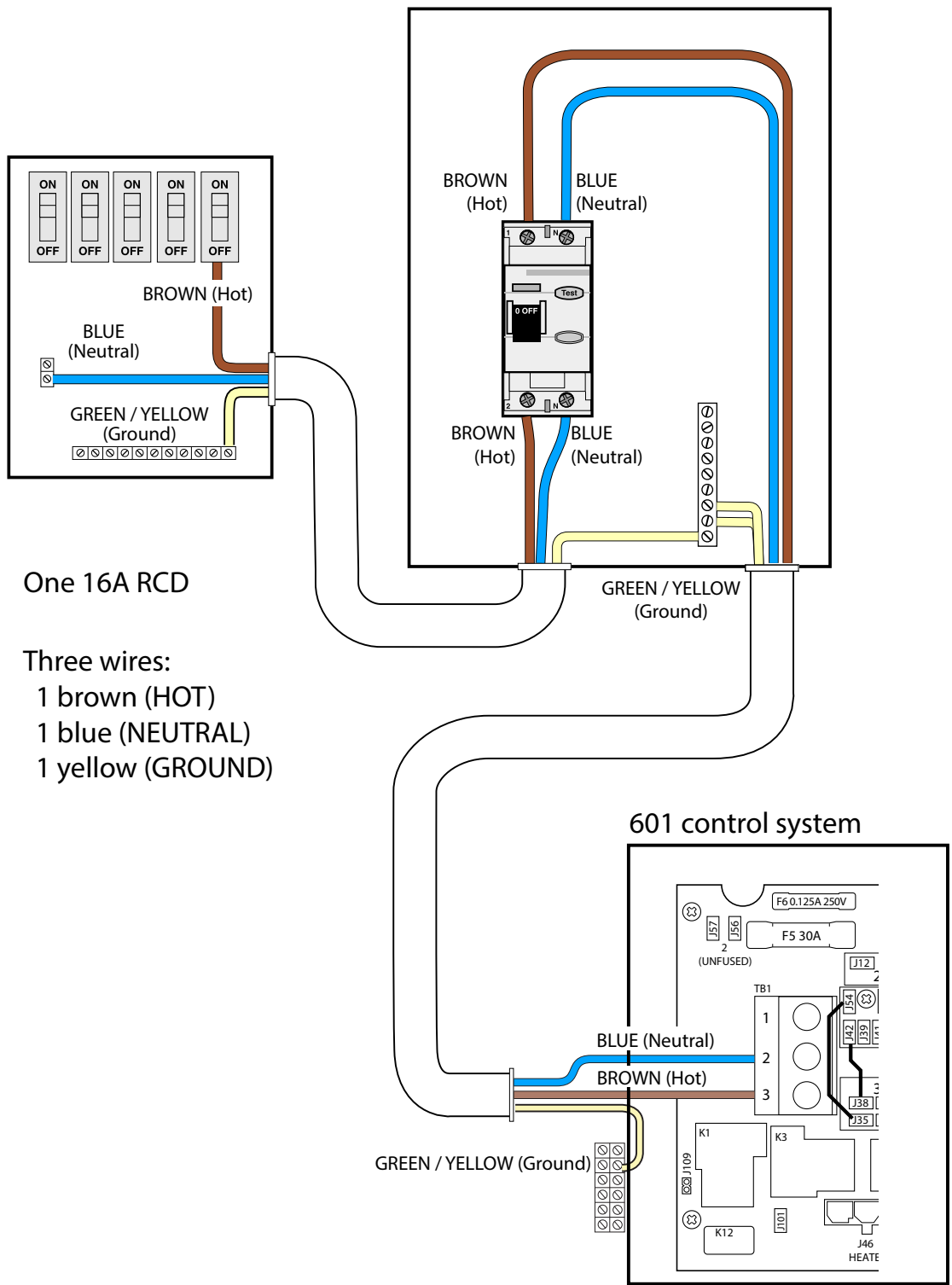
One 16A RCD

Three wires:
  1 brown (HOT)
  1 blue (NEUTRAL)
  1 yellow (GROUND)

601 control system

F6 0.125A 250V

J57 J56

F5 30A

2
(UNFUSED)

J12

TB1

J54

J42 J39

1

2

3

BLUE (Neutral)

BROWN (Hot)

J38

J35

K1

K3

J109

GREEN / YELLOW (Ground)

K12

J101

J46
HEATE

Diagram 2

ON ON ON ON ON

OFF OFF OFF OFF OFF

BROWN (Hot)

BLUE
(Neutral)

GREEN / YELLOW
(Ground)

BROWN
(Hot)

BLUE
(Neutral)

N

Test

0 OFF

BROWN
(Hot)

BLUE
(Neutral)

GREEN / YELLOW
(Ground)

One 32A RCD

Three wires:
1 brown (HOT)
1 blue (NEUTRAL)
1 yellow (GROUND)

2100 control system

J9

PUMP 1

J46

K4

K2

J56 J57 J55

F6 30A

J60 J41

J51

BLUE (Neutral)

1

2

BROWN (Hot)

J37 J72

3

J36 J53

4

GREEN / YELLOW (Ground)

J110

J45 J79 J54 J77 J75 J78

4

Diagram 3

ON ON ON ON ON
OFF OFF OFF OFF OFF

BROWN (Hot)

BLUE
(Neutral)

GREEN / YELLOW
(Ground)

BROWN
(Hot)

BLUE
(Neutral)

BROWN
(Hot)

BLUE
(Neutral)

Test

Test

0 OFF

0 OFF

BROWN
(Hot)

BLUE
(Neutral)

BROWN
(Hot)

BLUE
(Neutral)

GREEN / YELLOW (Ground)
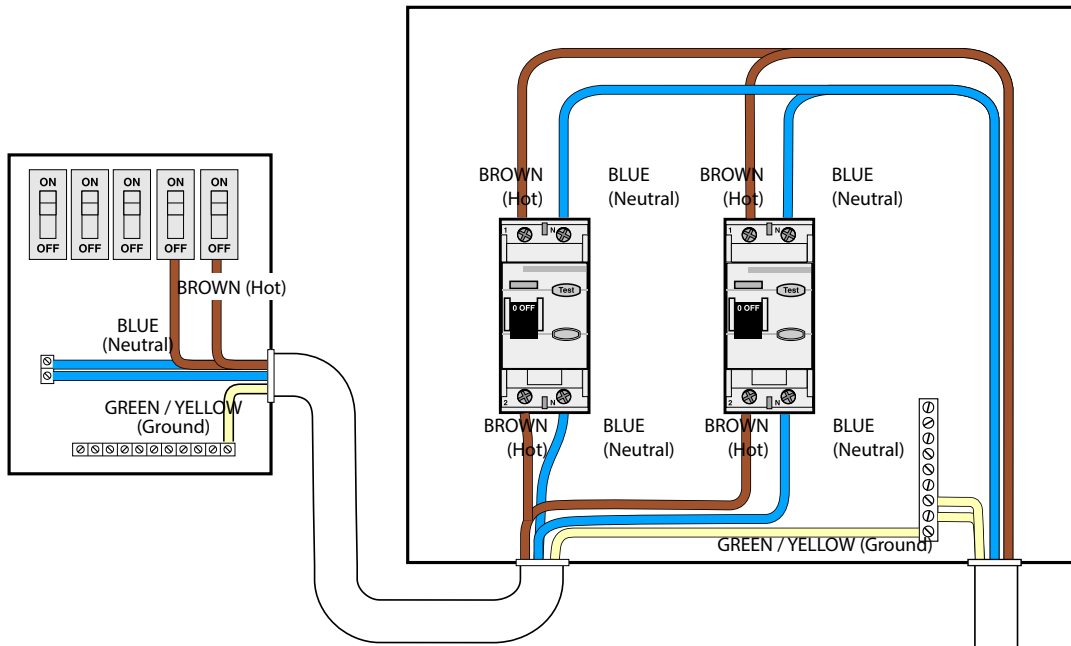
Two 16A RCDs

Six wires:
  2 brown (HOT)
  2 blue (NEUTRAL)
  2 yellow (GROUND)

601 control system

F 6 0.125A 250V

J57 J56 F5 30A
2
(UNFUSED)

J12

TB1

1
BLUE (Neutral)
2
BROWN (Hot)
3

J54
J42 J39
J38
J35

K1   K3

J109

K12

J101

J46
HEATE

GREEN / YELLOW (Ground)

BLUE (Neutral)
BROWN (Hot)

GREEN / YELLOW (Ground)

5.5 kW heater box

Diagram 4

ON ON ON ON ON
OFF OFF OFF OFF OFF

BROWN (Hot)

BLUE
(Neutral)

GREEN / YELLOW
(Ground)

BROWN
(Hot)

BLUE
(Neutral)

BROWN
(Hot)

BLUE
(Neutral)

1 N

Test

0 OFF

1 N

Test

0 OFF

BROWN
(Hot)

BLUE
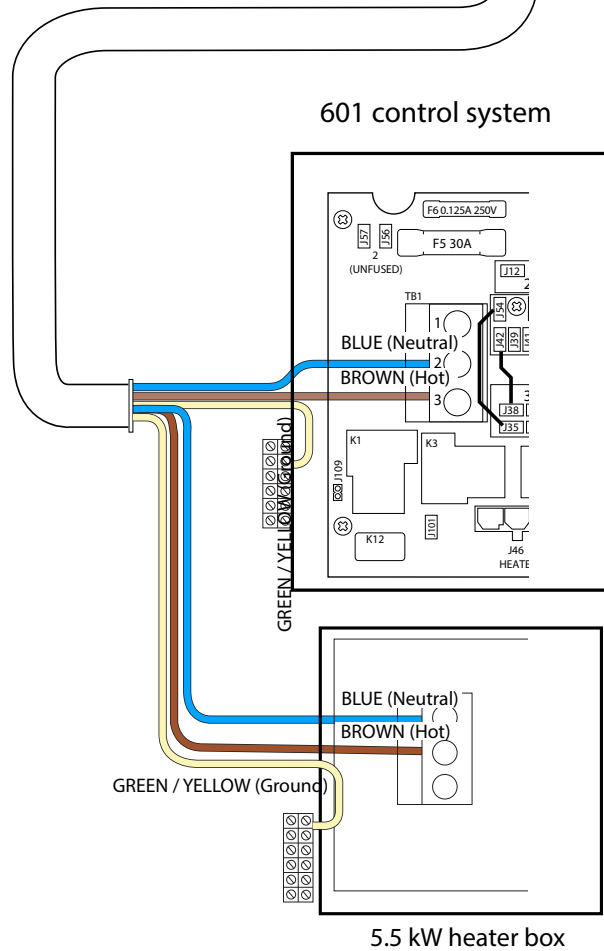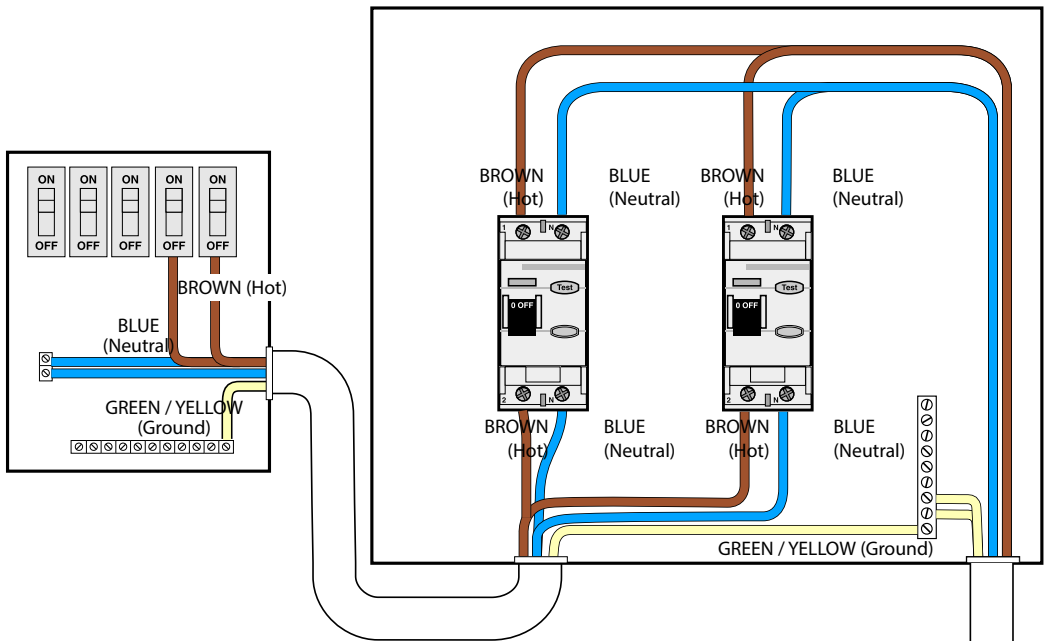(Neutral)

BROWN
(Hot)

BLUE
(Neutral)

GREEN / YELLOW (Ground)

One 32A RCD
(connect to 2100 control system)

One 16A RCD
(connect to 5.5 kW heater box)

Six wires:
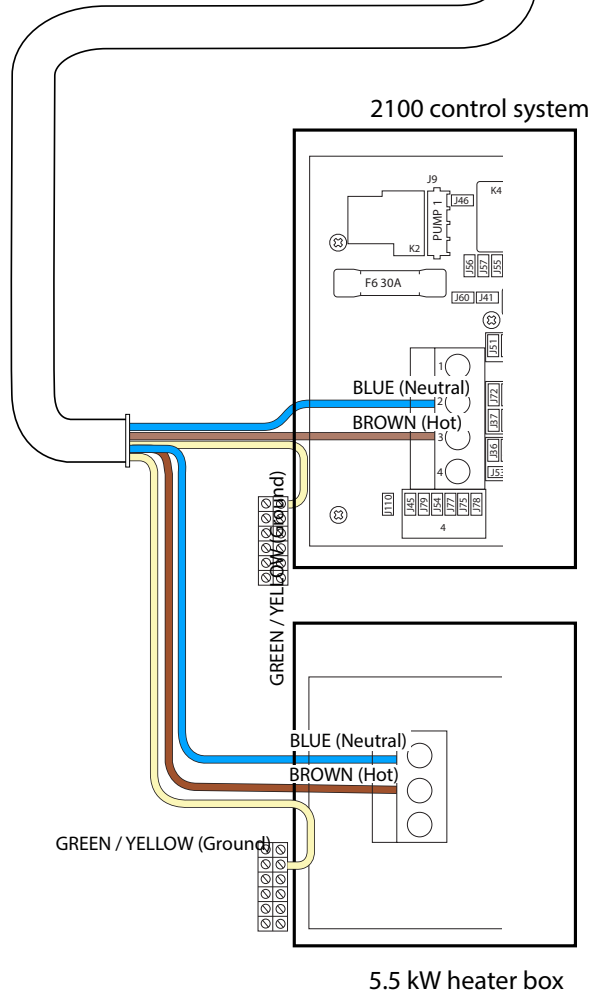 2 brown (HOT)
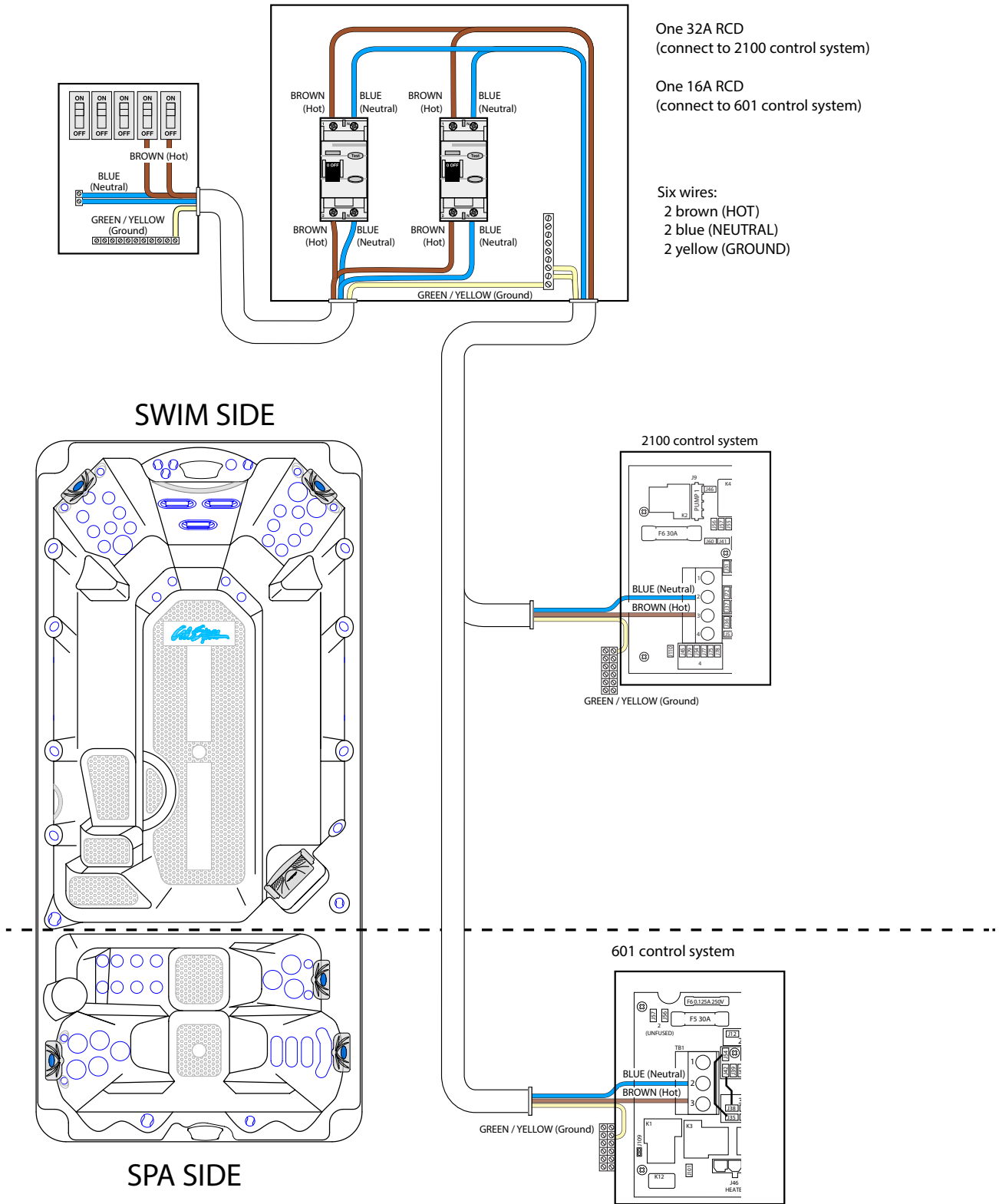 2 blue (NEUTRAL)
  2 yellow (GROUND)

2100 control system

J9
PUMP 1
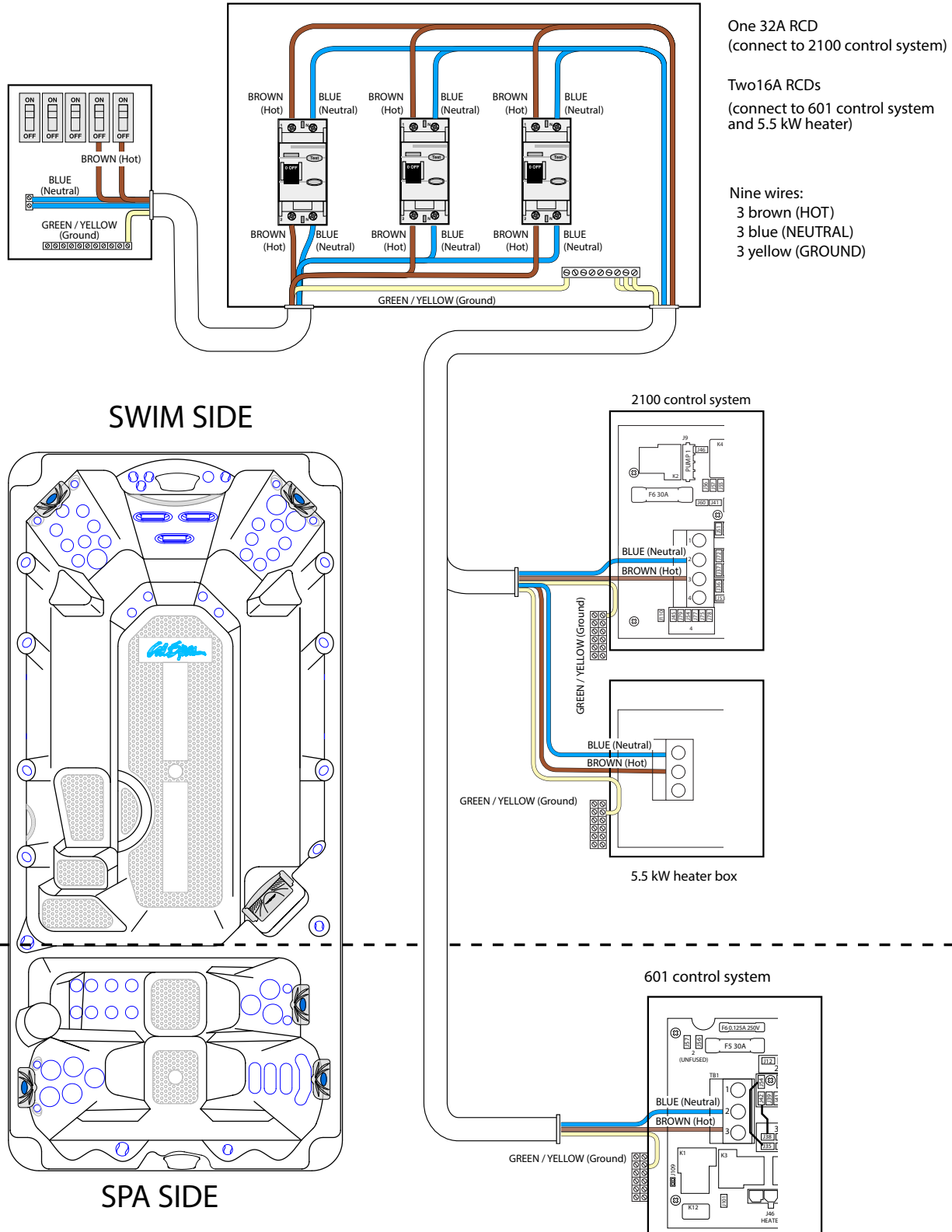J46
K4
K2
J56 J57 J55
F6 30A
J60 J41
J51

BLUE (Neutral)
BROWN (Hot)

J71
J72
J87 J37
J86 J77
J52

J10
J45 J54 J76 J75 J78
4

GREEN / YELLOW (Ground)

BLUE (Neutral)
BROWN (Hot)

GREEN / YELLOW (Ground)

5.5 kW heater box

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Diagram 5

With 3.0 kW heater only

One 32A RCD
(connect to 2100 control system)

One 16A RCD
(connect to 601 control system)

Six wires:
  2 brown (HOT)
  2 blue (NEUTRAL)
  2 yellow (GROUND)

BROWN (Hot)
BLUE (Neutral)
GREEN / YELLOW (Ground)

BROWN (Hot) BLUE (Neutral) BROWN (Hot) BLUE (Neutral)

BROWN (Hot) BLUE (Neutral) BROWN (Hot) BLUE (Neutral)

GREEN / YELLOW (Ground)

SWIM SIDE

2100 control system

BLUE (Neutral)
BROWN (Hot)

GREEN / YELLOW (Ground)

601 control system

BLUE (Neutral)
BROWN (Hot)

GREEN / YELLOW (Ground)

SPA SIDE

Diagram 6

With 3.0 kW heater and 5.5 kW heater

ON ON ON ON ON
OFF OFF OFF OFF OFF

BROWN (Hot)

BLUE
(Neutral)

GREEN / YELLOW
(Ground)

BROWN
(Hot)

BLUE
(Neutral)

BROWN
(Hot)

BLUE
(Neutral)

BROWN
(Hot)

BLUE
(Neutral)

Test

D OFF

Test

D OFF

Test

D OFF

BROWN
(Hot)

BLUE
(Neutral)

BROWN
(Hot)

BLUE
(Neutral)

BROWN
(Hot)

BLUE
(Neutral)

GREEN / YELLOW (Ground)

One 32A RCD
(connect to 2100 control system)

Two16A RCDs
(connect to 601 control system
and 5.5 kW heater)

Nine wires:
3 brown (HOT)
3 blue (NEUTRAL)
3 yellow (GROUND)

SWIM SIDE

2100 control system

J9
J46
PUMP 1
K4
K2

F6 30A

J60 J41

BLUE (Neutral)
BROWN (Hot)

GREEN / YELLOW (Ground)

4

BLUE (Neutral)
BROWN (Hot)

GREEN / YELLOW (Ground)

5.5 kW heater box

SPA SIDE

601 control system

F6 0.125A 250V

F5 30A

2
(UNFUSED)

J12

TB1

BLUE (Neutral)
BROWN (Hot)

1
2
3

3
J38
J35

GREEN / YELLOW (Ground)

K1
K3

K12

J46
HEATE

Filling and Powering Up Your Portable Spa

1. Inspect the spa equipment.

Inspect all plumbing connections in the equipment area of your spa.
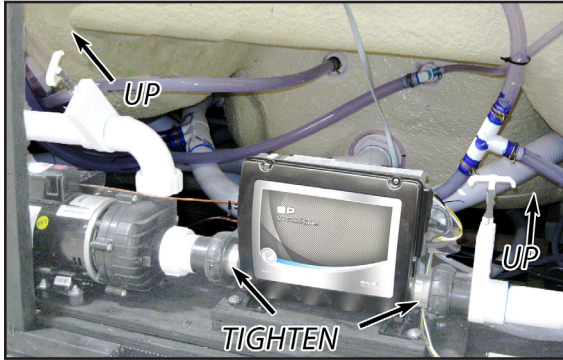
- Make sure unions in the equipment pack are tight. (Be careful not to over-tighten the plumbing fittings.)

- If your spa has gate valves, make sure they are all in the UP or OPEN position.

- Make sure the drain valve is closed and capped. (See page 42 for a description of drain valves.)
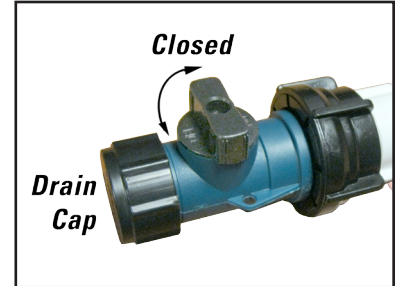
⚠ Never run the spa with the gate valves closed or without water circulating for long periods of time.

2. Remove the cartridge from filter canister.

If you have a skimmer like this:

Grip the filter by the handle and unscrew it from the canister.

If you have a skimmer like this:

Remove the black skimmer cap and barrel, grip the filter by the handle and unscrew it from the canister.

Teleweir Mega filter skimmer

- 75 square feet filtration
- Smooth cap

If you have a skimmer like this:

Rotate and remove the black locking ring. Remove the black skimmer cap and barrel, grip the filter by the handle and unscrew it from the canister. Replace and lock the locking ring and slide the skimmer cap and barrel back in the canister.

Note: The skimmer cap and barrel were locked in place at the factory to prevent damage during shipment. It must be unlocked and replaced in the filter canister so that it can float when the spa is filled. If you do not remove the cap and barrel, your spa's filtration system will not perform as it was designed to.

Teleweir filter skimmer

- 50 square feet filtration
- Spoked cap

⚠ After you remove the filter, remove the plastic wrapper and soak it in water for 30 minutes before you replace it. A dry filter can allow air into the filtration system which can cause the pump to fail to prime.

3. Fill the spa.

Place a garden hose in the filter canister and fill your spa.

Always fill the spa through the filter canister.

Failure to do so may cause air to be trapped in the filtration system and prevent the pumps from operating properly.

Water level
About six inches from the top
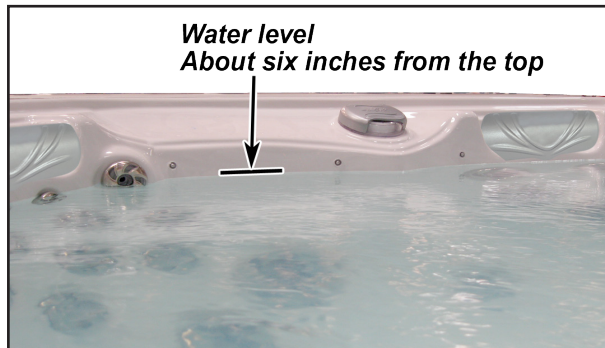
⚠️ Fill the spa until water level is about six inches from the top.

If the water level is too low or too high, your spa will not operate properly.

Never fill your spa with soft water.

Soft water makes it impossible to maintain the proper water chemistry and may cause the water to foam, which will ultimately harm the finish of the spa and void your warranty.

4. Turn on power to the spa.

When the spa is filled to the correct level, turn on the power at the GFCI breaker. (Ensure that the 120V spas are connected to the proper electrical outlet.)

5. Prime the pump.

Your spa will perform a self-diagnostic check and go into Priming Mode. The control panel will display either **RUN PUMPS PURG AIR ---** or **Priming Mode**, depending on which control panel you have.

Do the following:

Press the JETS or JETS 1 button once to start the pump in low speed.

    a. Press it again to switch the pump to high speed.

    b. If you have other pumps, press JETS 2 or JETS 3 to turn them on also. Running the pumps helps the pumps prime.

After two minutes, the pump should prime. If it does not, follow the priming instructions on the next page. If it does, continue with the next step.

6. Install the filter into the filter canister.

⚠️ Make sure the filter has soaked at least 30 minutes before you install it.
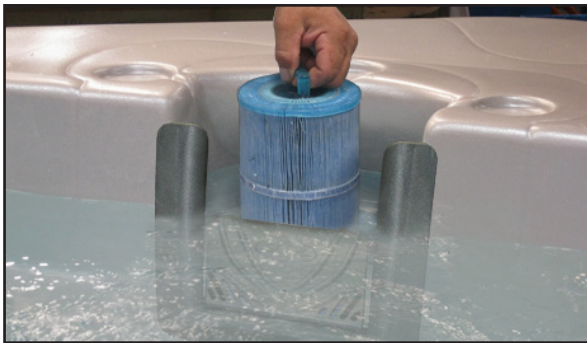
7. Adjust water chemistry.

Test and adjust the water chemistry. See the section on page 41. for instructions on keeping your water clear.

Spa owners with the bromine generator need to follow the instructions on page 39.

8. Let the spa heat up.

When the spa has finished priming, the heater will activate. Put the cover on and let the spa heat to the set temperature.

Priming the Pump

New spa owners often have difficulty the first time they start their spa and the pump fails to prime. This can be frustrating, but these simple instructions can help you.

⚠️ The pump will not work properly while air is trapped in it. Continuing to operate the pump in this way will cause damage.

Sometimes air can become trapped in the pump while filling the spa. You will know this has happened when after you have filled and started the spa, the pump does not seem to function. You will hear the pump operating, but no water will be moving.

Starting Up: Priming Mode

After the initial start-up sequence, the spa will enter Priming Mode, which lasts 4 to 5 minutes. Depending on your control panel, one of the messages shown at right will appear.

`RUN` `PMPS` `PURG` `AIR` `-- -- -- --`

As soon as the Priming Mode screen appears on the panel, press the Jets or 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.

| Exit | Jets 1 | Jets 2 | Jets 3 | Circ |

Priming Mode
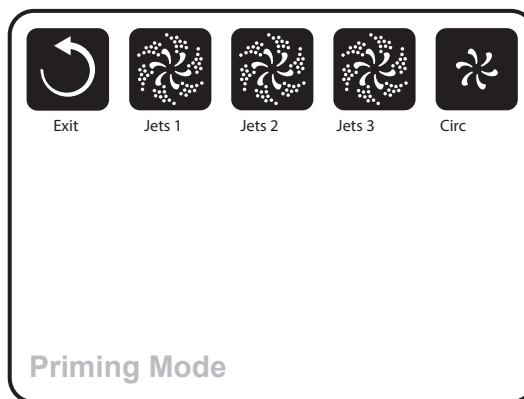
If the pumps have not primed after two minutes, and water is not flowing from the jets in the spa, do not allow the pumps to continue to run. Turn off the pumps and repeat the process. Note: Turning the power off and back on again will initiate a new pump priming session.

Sometimes momentarily turning the pump off and on will help it to prime. Do not do this more than five times. If the pumps 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 two minutes. Under NO circumstances should a pump be allowed to run without priming beyond the end of the 4 to 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 by pressing an Up or Down button. Note that if you do not manually exit the priming mode as described above, the priming mode will be automatically terminated after 4 to 5 minutes. Be sure that the pumps 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. This is because the system requires approximately one minute of water flowing through the heater to determine the water temperature and display it.

Preparing for Your New Portable Spa

Bleeding Air from the Pump

If you have tried priming the pump several times unsuccessfully using the control panel, you can bleed the air from the pump manually.

1. Shut off the power to the spa.

2. Using a Phillips screwdriver, remove the front panel from the spa and locate the pump.

3. Close the gate valve on the discharge side of the pump (if your spa is installed with one.)

4. Turn the bleeder valve counter clockwise with a small pair of pliers until the air has been released from the pump.

5. If this is unsuccessful, loosen the union nut on side of the pump with channel locks. When air is bled out, tighten the nut.

6. Turn on power to the spa and press the JETS button. If there is still air trapped in the pump, repeat steps 2 through 5 until the pump primes.

Gate Valve

Union Nut

Bleeder Valve
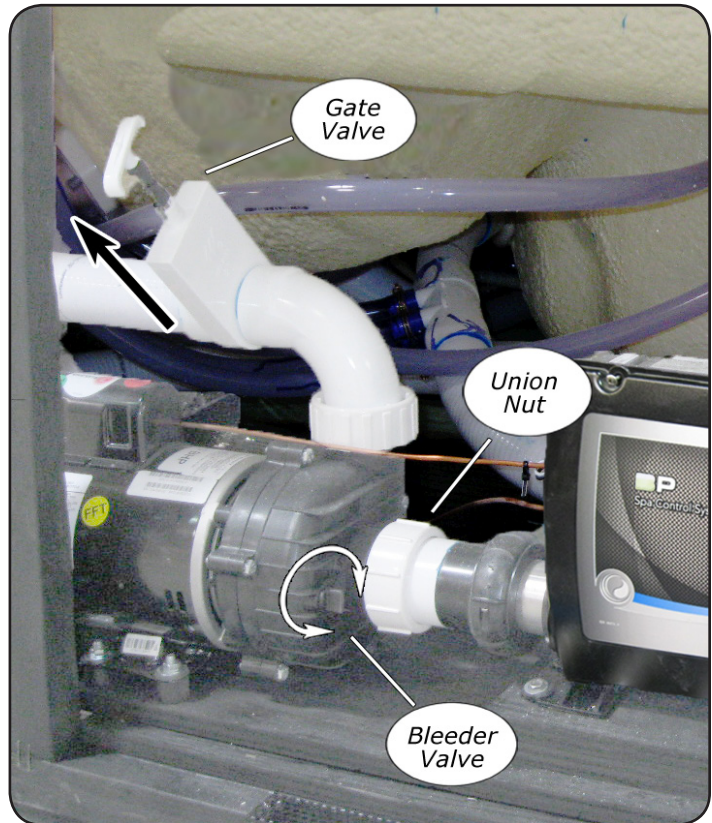
TP400 and TP600 Control Panel Operation

Primary Navigation and Functions

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

During normal operation, the control panel will show the actual temperature of the water, as the control panels above show.

There are eleven settings, or menu items, you can access in the control panel. To access them in order, start by pressing the **Warm** or **Cool** button once. The Set Temperature will start to flash.

While the set temperature is still flashing, press the **Light** button. This will take you to the next menu item. Each time you press the **Light** button, it will take you to the next screen.

The figures below show the order the menu items appear. Tap each menu item to go to the section that explains its function.

Warm	Cool	Light	Jets	Aux
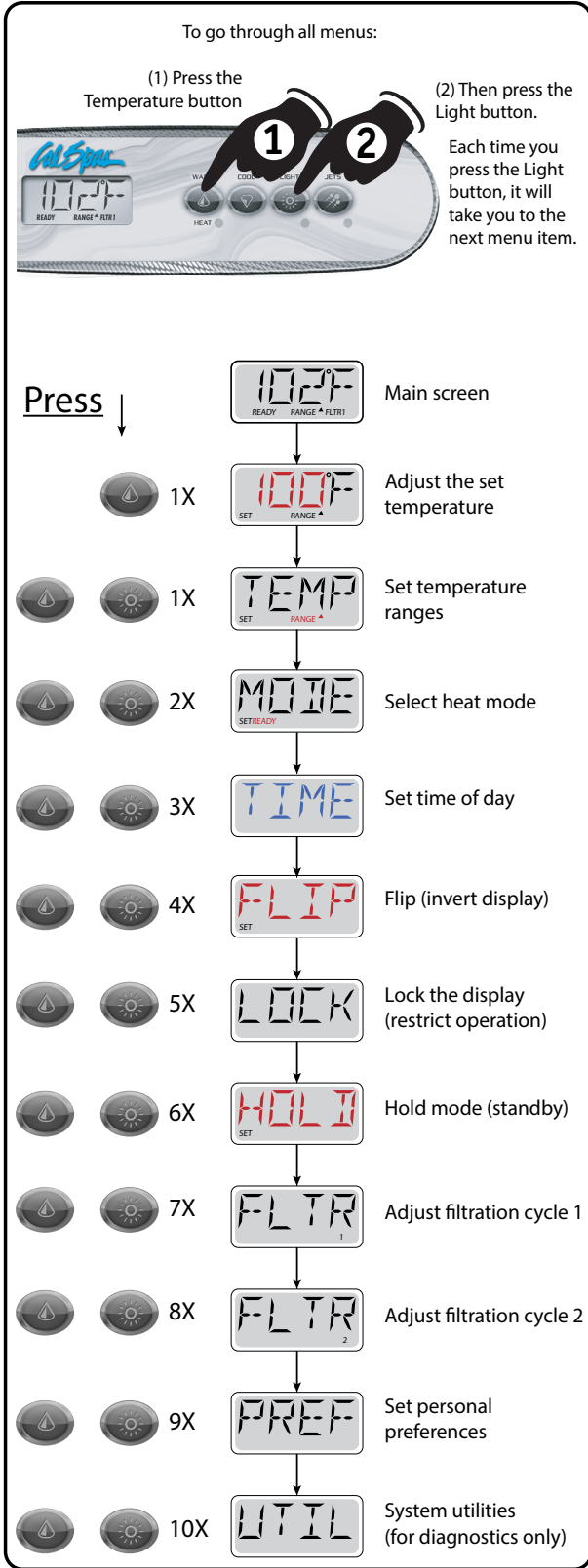
TP400 Control Panels

For one pump systems

For two pump systems

TP600 Control Panel

To go through all menus:

(1) Press the Temperature button

(2) Then press the Light button.

Each time you press the Light button, it will take you to the next menu item.

Press ↓

	102°F	Main screen
1X	100°F	Adjust the set temperature
1X	TEMP	Set temperature ranges
2X	MODE	Select heat mode
3X	TIME	Set time of day
4X	FLIP	Flip (invert display)
5X	LOCK	Lock the display (restrict operation)
6X	HOLD	Hold mode (standby)
7X	FLTR 1	Adjust filtration cycle 1
8X	FLTR 2	Adjust filtration cycle 2
9X	PREF	Set personal preferences
10X	UTIL	System utilities (for diagnostics only)

Operating Your Spa

Jets and Pumps

Jet Operation

One Pump Systems
Uses the TP400 control panel

Single pump systems are all two-speed pumps.

To operate the jets, press the **JETS** button:

- Once to turn on low speed.
- Twice to turn on high speed.
- Three times to turn off the pump.

Two pump systems
Uses either the TP400 or TP600 control panel

Press the **Jets** or **Jets 1** button:

- Once to turn on low speed.
- Twice to turn on high speed.
- Three times to turn off the pump.

Press the **Aux** or **Jets 2** button:

- Once to turn the pump ON.
- Twice to turn the pump OFF.

Three pump systems
Uses the TP600 control panel

Press the **Jets 1** button:

- Once to turn on low speed.
- Twice to turn on high speed.
- Three times to turn off the pump.

Press the **Jets 2** button:

- Once to turn the pump ON.
- Twice to turn the pump OFF.

Press **Jets 3** button:

- Once to turn the pump ON
- Twice to turn pump OFF.

What is the difference between a 24-hour circulation pump and a two-speed pump?

Circulation Pump - A 24-hour circulation pump is an optional, dedicated low power pump just for filtration. A circulation pump will reduce wear and tear on main pump and can cost less to run than using pump 1 for filtration. When a spa has a circulation pump, pump 1 will have only one speed.
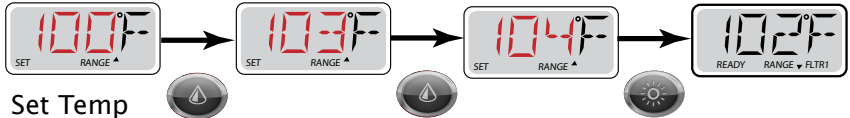
Although it can be set to run continuously, some spa owners prefer to reduce their filtration times in order to lower their energy cost. See "Adjusting Filtration" on page 22.

Two-Speed Pump - Spas without a circulation pump use the low speed setting of pump 1 as a circulation pump. Pump 1 will have two speeds, low speed and high speed. Low speed is used for filtration, and high speed is used for operating the jets.

Adjusting the Set Temperature

Press	Once

Press the WARM or COOL buttons to adjust the set temperature.

When the temperature stops flashing, the spa will heat to the new set temperature when required. The temperature can be set between 15.5°C and 40°C (60°F and 104°F).

100°F → **103°F** → **104°F** → **102°F**

Set Temp will show and flash

Press the Temp buttons to change the temperature.
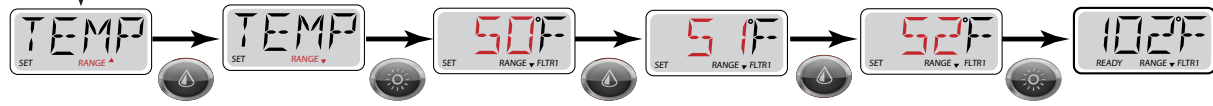
Main Screen

Setting Dual Temperature Ranges

Press	⬥	Once
Then Press	☀	Once

You can set two temperature range settings with independent set temperatures. The High Range is shown in the display by an "up" arrow and the Low Range with a "down" arrow. The ranges can be used for different reasons, the most common being a "ready to use" setting versus a "vacation" setting. (See "Vacation Setting" below.) Each range maintains its own set temperature that you program according to your needs. This way, when a range is chosen, the spa will heat to the set temperature programmed to that range.

High Range can be set between 26.5°C and 40°C (80°F and 104°F).

Low Range can be set between 10°C and 37°C (50°F and 99°F).

The example below shows setting the Low Range temperature.

TEMP → **TEMP** → **50°F** → **51°F** → **52°F** → **102°F**

Select High Range or Low Range. Toggle the Range arrows on the display.

Set Temp will show and flash

Press a Temp Button repeatedly to change the temperature.

Main Screen

Vacation Setting

Set the spa to operate in the Lower Range temperature choice before you go on vacation.

1. Press the Temp button. The "Set Temp" will show and flash.

2. Press the Light button. "TEMP" will show on the display, which give you the choice of High Range or Low Range.

3. To set the Low Range, press the Light button, then press the Temp button. The "Set Temp" will show and flash.

4. Press the Temp buttons to adjust the temperature.

5. Press the Light button or wait several seconds to return to the main screen.

Setting the Heat Mode

Press ◉ Once

Then Press ☀ Twice
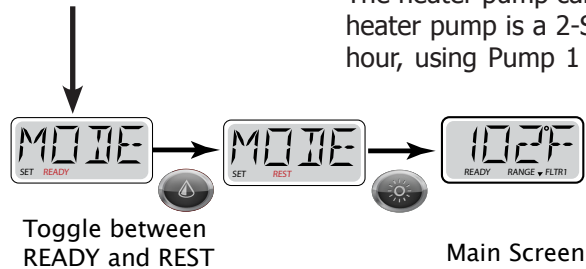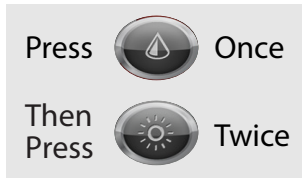
There are two heat modes: READY Mode and REST Mode.

READY Mode: 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: 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.

MODE SET READY → MODE SET REST → 102°F READY RANGE FLTR1

Toggle between READY and REST

Main Screen

Ready-in-Rest Mode

READY/REST appears in the display if the spa is in Rest Mode and Jet 1 is pressed. When the spa is being used, it 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.
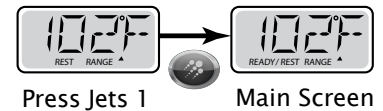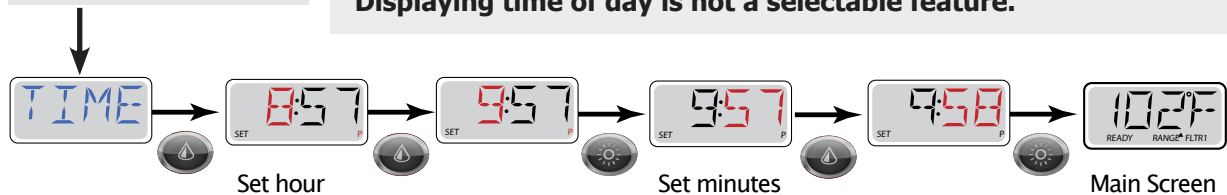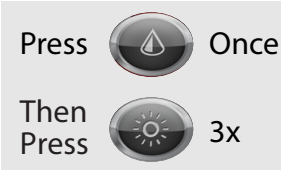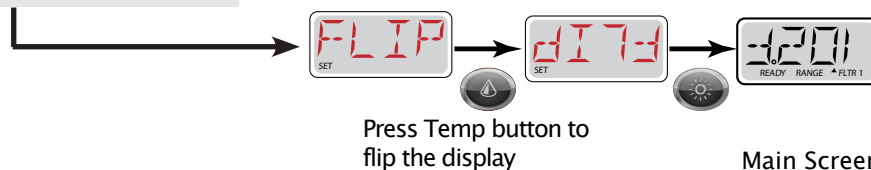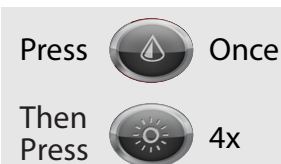
102°F REST RANGE → 102°F READY/REST RANGE

Press Jets 1   Main Screen

Setting Time

Press ◉ Once

Then Press ☀ 3x

Setting the time of day is important for determining filtration times and other background features. 24-hour time display can be set under the PREF menu.

Note: This system does NOT display the time of day. The default display on the Main Screen is the current water temperature. Displaying time of day is not a selectable feature.

TIME → 8:57 SET P → 9:57 SET P → 9:57 SET P → 9:58 SET P → 102°F READY RANGE FLTR1

Set hour   Set minutes   Main Screen

Flip (Invert Display)

Press ◉ Once

Then Press ☀ 4x

Inverting the display allows you to be able to read the control panel while you are in the spa.

FLIP SET → dI7d SET → 120 READY RANGE FLTR 1

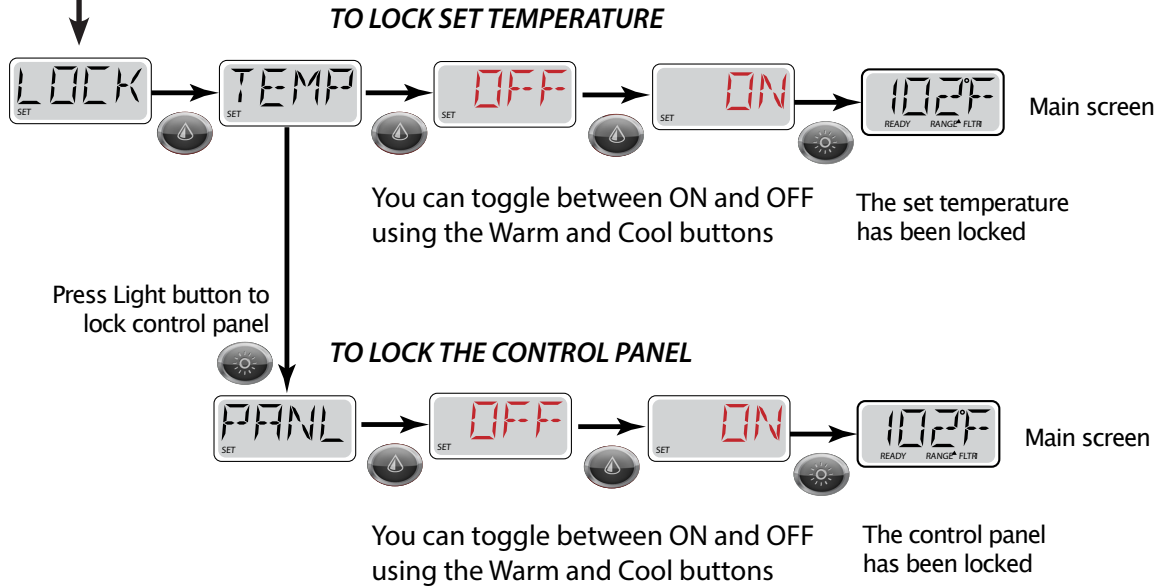Press Temp button to flip the display

Main Screen

Locking the Control

Press ⬥ Once

Then
Press ☀ 5x

The control can be locked to prevent unwanted use or temperature adjustments. You can lock the set temperature or the control panel.
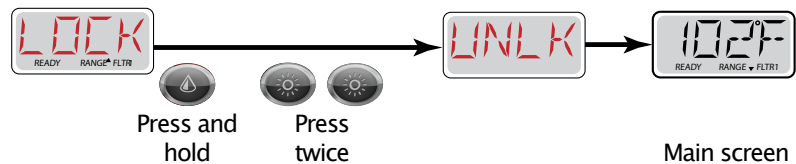
Locking the temperature allows Jets and other features to be used, but the Set Temperature and other programmed settings cannot be adjusted.

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

TO LOCK SET TEMPERATURE

LOCK → TEMP → OFF → ON → 102F   Main screen
SET   SET   SET   SET   READY RANGE FLTR

You can toggle between ON and OFF using the Warm and Cool buttons

The set temperature has been locked

Press Light button to lock control panel
☀

TO LOCK THE CONTROL PANEL

PANL → OFF → ON → 102F   Main screen
SET   SET   SET   READY RANGE FLTR

You can toggle between ON and OFF using the Warm and Cool buttons

The control panel has been locked

Unlocking the control

While pressing and holding the WARM Button, press the LIGHT button twice.

LOCK → UNLK → 102F
READY RANGE FLTR   READY RANGE FLTR1

Press and hold   Press twice

Main screen

Hold Mode

Press ⬥ Once

Then
Press ☀ 6x

Hold Mode is used to disable the pumps during service functions like cleaning or replacing the filter. (See page 44 for instruction on cleaning the filter.)

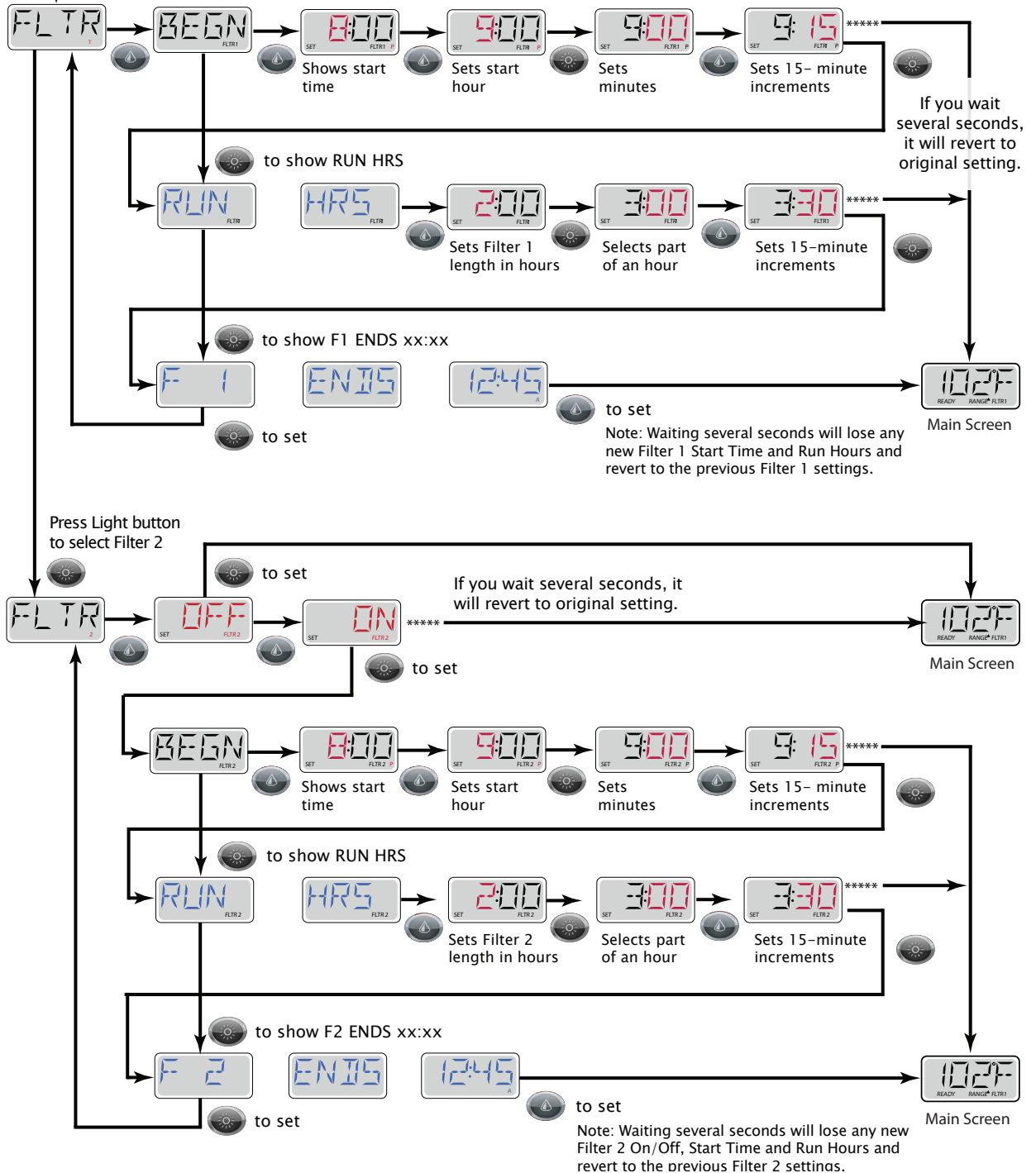Hold Mode will last for 1 hour unless the mode is exited manually.

HOLD → HOLD ING FOR 0:57 → DONE → 102F
                                                                READY RANGE FLTR

Timer will count down for 60 minutes   Main Screen

Adjusting Filtration

Press ⬤ Once

Then Press ☀ 7x

Main Filtration

Filter cycles are set using a duration. Each setting can be adjusted in 15-minute increments. Filter Cycle 1 and Filter Cycle 2 (if enabled) are set to the same duration.

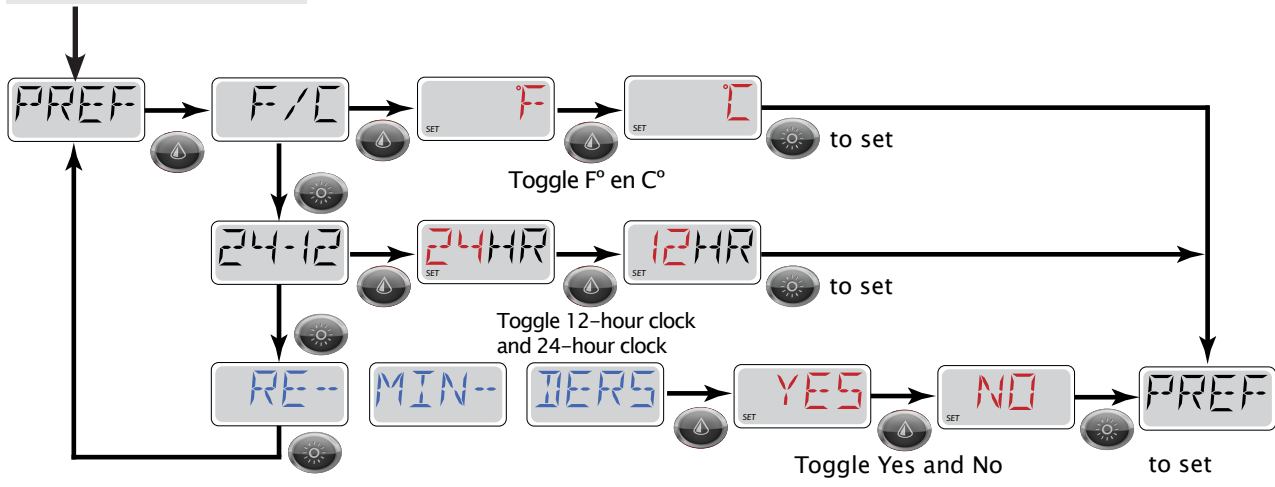If Filter Cycle 2 is enabled, Filter 2 will appear in the LCD. If Filter 2 is disabled, Filter 1 will appear.

BEGN → Shows start time → Sets start hour → Sets minutes → Sets 15-minute increments *****

If you wait several seconds, it will revert to original setting.

to show RUN HRS

RUN HRS → Sets Filter 1 length in hours → Selects part of an hour → Sets 15-minute increments *****

to show F1 ENDS xx:xx

F 1 ENDS 12:45 → to set

Note: Waiting several seconds will lose any new Filter 1 Start Time and Run Hours and revert to the previous Filter 1 settings.

102°F — Main Screen

Press Light button to select Filter 2

FLTR 2 → **OFF** → **ON** *****

If you wait several seconds, it will revert to original setting.

to set

102°F — Main Screen

BEGN → Shows start time → Sets start hour → Sets minutes → Sets 15-minute increments *****

to show RUN HRS

RUN HRS → Sets Filter 2 length in hours → Selects part of an hour → Sets 15-minute increments *****

to show F2 ENDS xx:xx

F 2 ENDS 12:45 → to set

Note: Waiting several seconds will lose any new Filter 2 On/Off, Start Time and Run Hours and revert to the previous Filter 2 settings.

102°F — Main Screen

Setting Preferences

Press ⬨ Once

Then Press ☀ 9x

This allows you to set the following preferences for system operation:

- Change the temperature between Fahrenheit and Celsius
- Change the clock between 12-hour and 24-hour display
- Turn periodic reminders (like "CLEAN FILTER") on or off

`PREF` → `F/C` → `°F` `°C` to set

Toggle F° en C°

`24-12` → `24HR` `12HR` to set

Toggle 12–hour clock and 24–hour clock

`RE--` `MIN--` `DERS` → `YES` `NO` → `PREF`

Toggle Yes and No   to set

Utilities

This menu feature is for system information only and is used mainly for repair and troubleshooting.

Other Spa Systems

Several spa functions operate in the background and require no action or maintenance from you. This is for your information only.

Pumps

Press the "Jets 1" button once to turn pump 1 on or off, and to shift between low- and high-speeds if equipped. If left running, the pump will turn off after a time-out period. The pump 1 low-speed will time out after 30 minutes. The high-speed 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 panel, however the high speed may be started.

Circulation Pump

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

The ozonator will run with the circulation pump during filtration cycles.

Purge Cycles

In order to maintain sanitary conditions, secondary Pumps and/or a Blower will purge water from their respective plumbing by running briefly at the beginning of each filter cycle.

Diagnostic Messages

Message	Meaning	Action Required
RUN PMPS PURG AIR	**Priming Mode** 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.
---F - ---C	**Water Temperature Is Unknown** After the pump has been running for 1 minute, the temperature will be displayed.	None
42F TOO COLD	**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.	None.
WATR TOO HOT	**Water is Too Hot** One of the water temp sensors has detected spa water temp 43.5°C (110°F) and spa functions are disabled.	None. System will auto reset when the spa water temp is below 42°C (108°F). Check for extended pump operation or high ambient temp.
SFTY TRIP ----	**Safety Trip - Pump Suction Blockage** 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: not all spas have this feature.)	Drain or filter may be covered, creating a blockage. Clear the blockage and reset by pressing any button on the topside panel.
HTR FLOW LOSS ----	**Heater Flow Is Reduced** There may not be enough water flow through the heater to carry the heat away from the heating element.	Check for low water level, suction flow restrictions, closed valves, trapped air, too many closed jets and pump prime. Heater start up will begin again after about 1 minute.
HTR FLOW FAIL ----	**Heater Flow is Reduced** There is not enough water flow through the heater to carry the heat away from the heating element and the heater has been disabled.	Check for low water level, suction flow restrictions, closed valves, trapped air, too many closed jets and pump prime. Heater start up will begin again after about 1 minute.

Message	Meaning	Action Required
HTR MAY BE DRY ---- WAIT ----	**Heater May Be Dry** Possible dry heater, or not enough water in the heater to start it. The spa is shut down for 15 min.	Check for low water level, suction flow restrictions, closed valves, trapped air, too many closed jets and pump prime. Press any button to reset the heater start-up.
HTR DRY ----	**Heater Is Dry** There is not enough water in the heater to start it. The spa is shut down.	Check for low water level, suction flow restrictions, closed valves, trapped air, too many closed jets and pump prime. Press any button to reset the heater start-up.
HTR TOO HOT ----	**Heater Is Too Hot** One of the water temp sensors has detected 48°C (118°F) in the heater and the spa is shut down.	Check for low water level, suction flow restrictions, closed valves, trapped air, too many closed jets and pump prime. Press any button to reset when water is below 42°C (108°F).
PRES BTTN TO RSET ----	**Spa Needs To Be Reset** This message may appear with other messages.	Press any button on the topside control to reset.
102F SNSR BAL- ANCE	**Sensor Balance Is Poor** The temperature sensors MAY be out of sync by 1°C or 2°C (2°F or 3°F).	Call for service.
SNSR SYNC ---- CALL FOR SRVC ----	**Sensor Balance is Poor** The temperature sensors ARE out of sync.	Call for service. Note: This message can be reset from the topside panel with any button press.
SNSR A ---- CALL FOR SRVC **SNSR B ---- CALLFOR SRVC**	**Sensor Failure** A temperature sensor or sensor circuit has failed.	Call for service.
NO COMM	**No Communications** The control panel is not receiving communication from the system.	Call for service.
102°T	**°F or °C is replaced by °T** The control system is in Test Mode.	Call for service.
STUK PUMP ----	**A Pump Appears To Be Stuck ON** Water may be overheated.	POWER DOWN THE SPA. DO NOT ENTER THE WATER. Call for service.
HOT FALT ---- CALL FOR SRVC ----	**A Pump Appears To Be Stuck ON** A pump appears to have been stuck ON when spa was last powered.	POWER DOWN THE SPA. DO NOT ENTER THE WATER. Call for service.

Operating Your Spa

TP800 Control Panel Operation

The Main Screen

Spa Status

When the spa has finished priming, you will see the Main Screen. Important information about spa operation can be seen quickly from the Main Screen. The most important features can be accessed from this screen.

- The actual water temperature can be seen in large text and the desired, or Set Temperature, can be selected and adjusted.

- Time-of-day, ozone operation and filter operation status are shown, along with other messages and alerts.

- Temperature Range (High or Low) is indicated in the upper right corner.

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

Navigation

There are four selections you can make on the Main Screen:

Set temperature - Press the left arrow button to change the Set Temperature number to white. The Set Temperature can then be adjusted with the up and down buttons. Pressing the Select button or the Right Arrow button will save the new set temperature.

Setting Your Language Preference

You can set the TP800 control panel to one of six languages: English, French, Spanish, German, Italian, and Czech.

On the main screen, select **Settings**, then scroll down to **Preferences**, and then select Language.

After you have made your selection, return to Preferences and select **Temp Display** to change the temperature display from Fahrenheit to Celsius.

After you have done this, return to the main menu.

The examples shown in this manual assume you have selected English as your language preference.

Water Temperature
Temperature Range
Desired Temperature
Pump and Heat
Left, Right, Up, Down, and Select Buttons

102°F
High Range
Set: 104°F
8:32 PM
Ozone
Filter 1
Status
Spa Scenes Settings
Ready in Rest Mode Heating
Messages
Menus
Lock Indicator
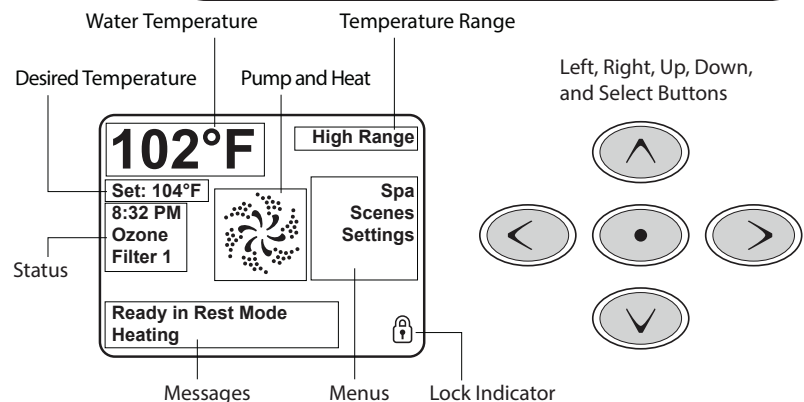
Menu selections - The three menu choices on the right, **Spa**, **Shortcuts**, and **Settings**, can be selected and the screen will change to show more detailed controls or programming functions. They will be discussed further in this section.

Messages

At the bottom of the screen, messages may appear at various times. Some of these messages must be dismissed by the user (see page 30).

Spa Screen

The Spa Screen shows all available equipment to control, as well as other features, like Invert, in one easy-to-navigate screen. 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 navigation buttons are used to select an individual device. The device that is chosen is highlighted with a white outline and the text under the icon changes to white. Once a device is selected, it can be controlled using the center Select Button.

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.
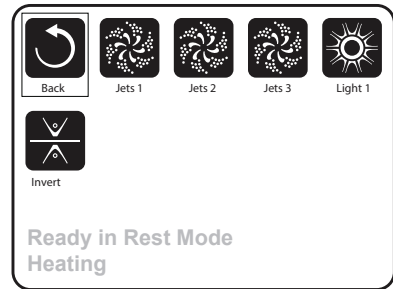
Settings Screen

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 include Temp Range, Heat Mode, and Invert Panel. When one of these items is highlighted, the Select Button is used to toggle between two settings. All other menu items (with an arrow pointing to the right) go to another level in the menu.
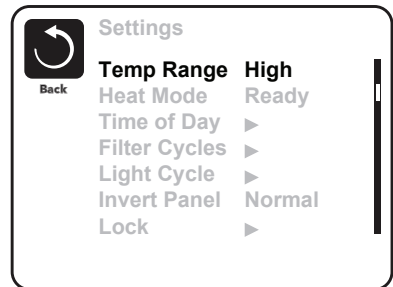
Setting Time of Day

Setting the time of day is important for determining filtration times and other background features. "Set Time" will appear on the Main Screen if no time of day is set.
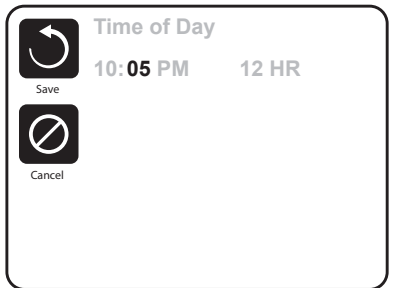
Setting Dual Temperature Ranges

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 26.5°C and 40°C (80°F and 104°F). Low Range can be set between 10°C and 37°C (50°F and 99°F). More specific Temp Ranges may be determined by the Manufacturer. Freeze Protection is active in either range.

	Settings	
Back	**Temp Range**	**High**
	Heat Mode	Ready
	Time of Day	▶
	Filter Cycles	▶
	Light Cycle	▶
	Invert Panel	Normal
	Lock	▶
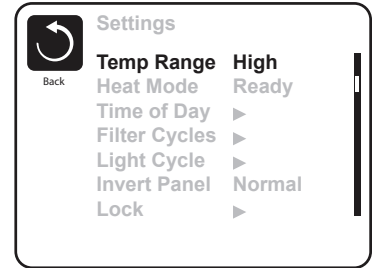
Selecting Heat Modes – Ready vs. Rest

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 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. 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.

	Settings	
Back	Temp Range	High
	Heat Mode	**Ready**
	Time of Day	▶
	Filter Cycles	▶
	Light Cycle	▶
	Invert Panel	Normal
	Lock	▶
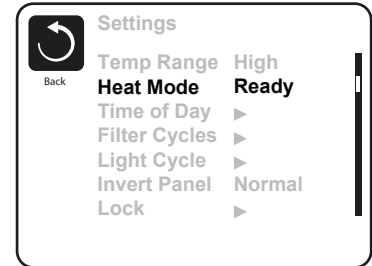
Circulation Mode

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 only heat to set temperature during programmed filter times, even though the water is being filtered constantly when in Circulation Mode.

	Filter Cycles
Back	**Filter Cycle 1**
	Starts at 12:00 AM
	Runs 0 HR 0 Min
	Ends at 12:00 AM
	Filter Cycle 2 NO
	Starts at 12:00 AM
	Runs 0 HR 0 Min
	Ends at 12:00 AM

	Filter Cycles
Save	**Filter Cycle 1**
	Starts at **6:15** AM
Cancel	Runs **3** HR 0 Min
	Ends at 9:15 AM
	Filter Cycle 2 NO
	Starts at 12:00 AM
	Runs 0 HR 0 Min
	Ends at 12:00 AM
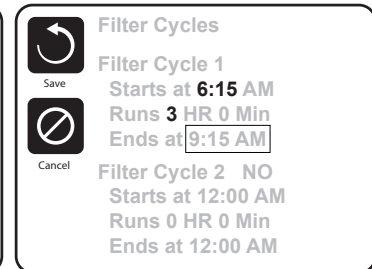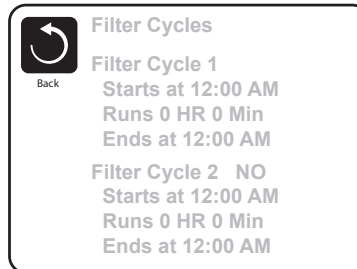
Ready-in-Rest Mode

READY/REST appears in the display if the spa is in Rest Mode and the Jets 1 Button 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 Settings Menu and changing the Heat Mode.

39°C	**Haute Gamme**
Set: 40°F	Spa
8:32 PM	Scènes
Ozone	Paramètres
Filtre 1	
Prêt/Repos	
Chauffage	
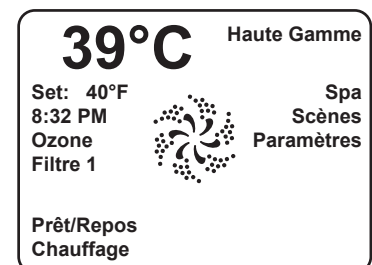
Setting Filter Cycles

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.

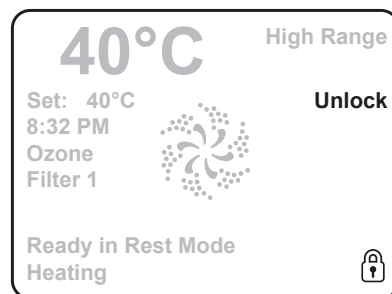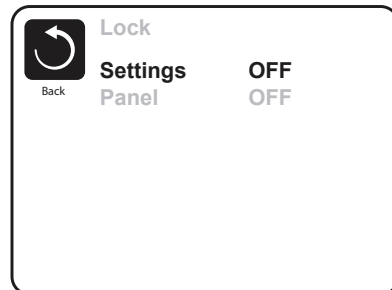Filter cycle 2 is off by default, but can be selected for use if desired.

Locking and Unlocking the Control Panel

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

Locking the Settings allows jets and other features to be used, but the set temperature and other programmed settings cannot be adjusted.

When settings are locked, there is a reduced selection of menu items. These include Set Temperature, Invert, Lock, Utilities, Information and Fault Log. They can be seen, but not changed or edited.

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

Lock	
Settings	**OFF**
Panel	OFF

Back

40°C   High Range

Set: 40°C   **Unlock**
8:32 PM
Ozone
Filter 1

Ready in Rest Mode
Heating

Locking and Unlocking -- Use the navigation buttons from the Lock Screen. The Lock and Unlock Sequence is the same for both Panel Lock and Settings Lock.

Press: ● Twice

Then Press: ∨ Once
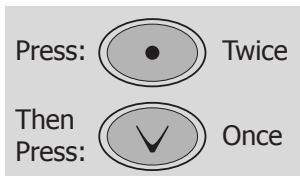
Additional Settings

Light Cycle

If Light Cycle does not appear in the Settings Menu, the light timer feature is not enabled by the manufacturer. When available, the light timer is OFF by default. The settings can be edited the same way as filter cycles.

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.

Hold

Hold Mode is used to disable the pumps during service functions like cleaning or replacing the filter. (See page 44 for instruction on cleaning the filter.)

Hold Mode will last for 1 hour unless the mode is exited manually.

Utilities

This menu feature is for system information only and is used mainly for repair and troubleshooting.

Preferences

This allows you to set the following preferences for system operation:

- Change the language on the control panel
- Change the temperature between Fahrenheit and Celsius
- Change the clock between 12-hour and 24-hour display
- Turn periodic reminded (like "CLEAN FILTER") on or off

Information

This menu feature is for system information only and is used mainly for repair and troubleshooting.

Diagnostic Messages

Message	Meaning
---F - ---C	Water temperature is unknown. After the pump has been running for one 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	The system has detected a spa water temp of 43.5°C (110°F) or more, and spa functions are disabled. System will auto reset when the spa water temp is below 42°C (108°F). Check for extended pump operation or high ambient temp.
Water flow is low	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.
Water flow has failed	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.
The heater may be dry	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.
The heater is dry	There is not enough water in the heater to start it. The spa is shut down. After the problem has been resolved, you must clear the message to restart heater start up. See "Flow Related Checks" below.
The heater is too hot	One of the water temp sensors has detected 48°C (118°F) in the heater and the spa is shut down. You must clear the message when water is below 42°C (108°F). See "Flow Related Checks" below.
Sensors are out of sync	The temperature sensors MAY be out of sync by 1°C or 2°C (2°F or 3°F). Call for service.
Sensors are out of sync -- Call for service	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	A temperature sensor or sensor circuit has failed. Call for service.
Communications error	The control panel is not receiving communication from the System. Call for service.
°F or °C is replaced by °T	The Control System is in Test Mode. Call for service.

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 by an error condition, some equipment may occasionally turn on to continue monitoring temperature or if freeze protection is needed.

Cal Spas Hot Tub Wi-Fi App

The Cal Spas Hot Tub Wi-Fi app can provide you with instant access and control of your spa wherever you connect within the spa's Wi-Fi range. This optional feature is available for use with any smart device (Android™ or iOS™ systems only). You must have the Wi-Fi module installed in your spa in order to use the app. It is only available for spas with the BP501 or BP2000 control box.

Spa owners who do not have this feature installed on their spa at the factory can order it as an after-market item.

Installing the app
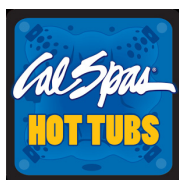
Go to the Apple app store or Google Play and search for the free spa app using the key words "Cal Spas Hot Tub." Select the app. The icon for the app will appear on your device as shown at left.

Make sure you enable Wi-Fi on your phone before you run the app.

On the Wi-Fi connections screen on your device, a network will appear called "BWGSpa_ xxxxxx_". (The x's represent the Wi-Fi module's local address and is unique for every spa.) Once you are connected to the network, start the Cal Spas app and follow the prompts on the screen. (Your start screen maybe different.)

1. Tap the app button on the main screen of your device.

2. Connect to the spa's Wi-Fi signal.

3. When connected, you will be taken to the main app screen.

4. You are now directly connected to your hot tub and can control all the hot tub functions via the app.
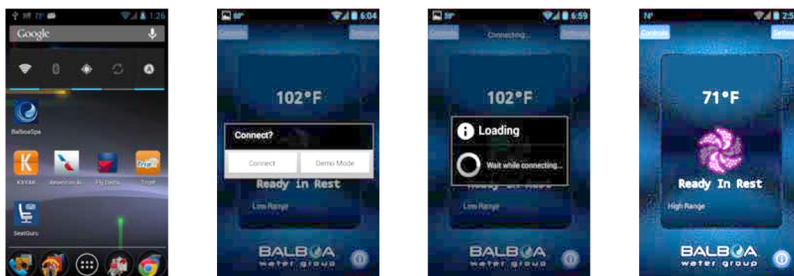
Troubleshooting connection problems

You should have few problems connecting with the Wi-Fi app. However, if you are unable to connect quickly and easily to the spa's Wi-Fi source, try doing the following.

• <u>Enable Wi-Fi on your device</u>. This is the most likely reason you may not be able to connect to the app. Check your devices Wi-Fi settings and try connecting again.

• Power cycle the spa. Shut off power to the spa for 30 second and turn it back on. Wait until the spa has gone through its complete set-up routine before you try to connect with the Wi-Fi app.

• <u>Wait until the spa has completely primed</u>. When you turn on the spa, it will go through a priming routine, which is followed by temperature polling, where no temperature is shown on the control panel. As soon as a temperature appears, you can connect with the Wi-Fi app.

• If you use your home network router, it MUST be close enough to the spa in order for the spa's Wi-Fi signal to reach the router. If you have connectivity problems, you may need to relocate your router closer to your spa or consider adding a wireless signal booster to your router.

Operating Your Spa

Connecting to a Device or Network

① Direct connection

Range: About 20 feet
Range limit: Limited to the range
              of the wi-fi module

HOW TO CONNECT TO IT:
Install the app on your phone or device -- see the following section "Installing the app".

② Through home network with no internet access

Allows one local connection at a time

Range: About 50 feet
Range limit: Limited to the range of your
              home router's signal

HOW TO CONNECT TO IT:
1. Install the app on your phone or device.
2. Exit the app and go to wi-fi settings on your phone or device.
3. Select and enable your local router.
4. Start the app. After you connect, select Settings on the home screen.
5. On the Settings screen, select Advanced, then on the Advanced screen, select Wi-fi Settings.
6. On the Wi-fi screen, select WPA. Then select the name of your home router from the drop-down menu.
7. Enter the SSID and Key for your router, the tap Save and select OK twice.
8. Close the app and re-start it to connect to your home network.

③ Through a network with internet access, using
Cloud connection or other hotspot connection

Internet

3G or 4G

Allows unlimited simultaneous connections

Range: Worldwide
Range limit: Limited to 3G / 4G / hotspot
              availability
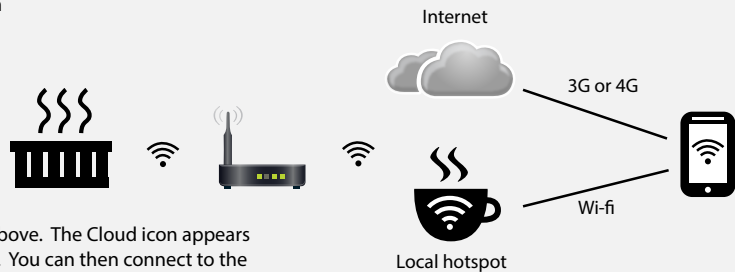
Wi-fi

HOW TO CONNECT TO IT:
Follow connection instructions from section (2) above. The Cloud icon appears automatically when network connection is made. You can then connect to the spa's wi-fi module.

Local hotspot

Your spa	Wi-fi signal	Phone or other device	Your home network router	Internet cloud connection	Local wi-fi connection
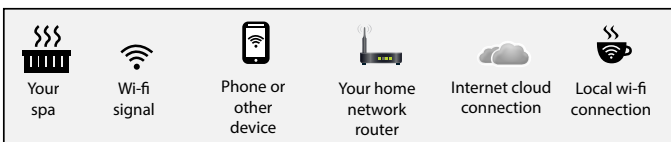
Cloud Service

Cal Spas Wi-Fi can be used as a point to point remote control to be added to any home network free of charge. Those using the Cloud to access spa control from nearly anywhere in the world via the Internet will enjoy one year Cloud service free of any access charge. After the initial year of Cloud service, the user will receive a notice from the Cloud provider requiring a small charge for each continuing year of Cloud service. At the time of this publication, the annual fee for this service is $24. Once your device is paired and connected, all sounds from your device will be played through the spa's optional sound system, including system sounds and telephone messages. The Wi-Fi package contents are pictured below.

Cal Spas app

Cal Spas WiFi Module
Part # ELE 50350-04

1 Year of Cloud
Remote Access*

* You will receive a notification approximately 45 days prior to the end of the expiration of your Cloud access with instructions on how to renew.

For More Information

If you have any trouble connecting, you can find more in-depth instructions at the Balboa Water Group web site at www.balboawatergroup.com/bwa and download the PDF document "Setting Up Your Wi-Fi".

There are also installation and setup videos at www.youtube.com/user/balboawatergroup.

Electrical Power Efficiency

Your new spa comes equipped with an electric heater. Following the directions listed below will ensure the most efficient operation:

NOTE: This method is only for spa usage under two hours a week.

- Keep the spa's operating temperature 3°C (5°F) below the desired usage temperature when not in use. One or two hours before use, set the temperature to the desired temperature.

- If the spa usage exceeds two hours a week, the set temperature should remain at the desired usage temperature.

- The air venturis should be used sparingly. When open, water temperature drops quite rapidly and can also dissipate chemicals.

Allowing the water temperature to lower more than 5.5°C (10°F) below the desired usage temperature and reheating it prior to usage will cause the heater to operate longer than it normally would maintaining the desired temperature. Doing this will increase your operating cost and makes your heater work more than necessary.

Adjustable Jets

Almost all of the jets in your spa are adjustable. Rotating the face of an adjustable jet to the left (counter-clockwise) will decrease the amount of water flow through the jet. Rotating the face of an adjustable jet to the right (clockwise) will increase the amount of water flow through the jet. (See example shown below.)

Neck jets adjust in the opposite directions (counter-clockwise to increase, clockwise to decrease).

LED Perimeter Lighting

Press the LIGHT button on the topside control panel to turn the spa light on. If your spa has perimeter LED lights, they will also light up at the same time as the spa light.

The perimeter lights operate in three modes:

1. **Cycle:** The first time you press the LIGHT button, the lights will cycle through all the colors in this order:

> White
> Cyan
> Magenta
> Blue
> Yellow/green
> Green
> Red

To cycle through the different color choices, press the button repeatedly. Each time you press the button, you advance to the next color.

2. **Flashing white:** When you have cycled through all the colors, the next time you push the LIGHT button, the LED lights will flash white.

3. **Fading cycle:** The next time you push the LIGHT button, the lights will gradually fade from one color to the next in the order shown above.

Spas with exterior corner LED lighting work in the same modes as described above but do not light up when the interior perimeter lights are yellow/green, green or red.

Diverter Knobs

Diverter knobs are the larger knobs located around the top of your spa. They allow you to divert water through jets from one side of the spa to the other, or in most cases from floor jets to wall jets. This is accomplished by rotating the diverter knob to the left (counterclockwise), decreasing the amount of water flow through a section of jets. To increase the amount of water flow through the other section of jets, rotate the handle to the right (clockwise).

Waterfalls

Some spa series include optional waterfalls. When the booster pump is on, rotate the dial on top (for the cascade waterfall) or turn the knob (for the hydro streamer -- see below).

Air Venturis

Air venturis are the smaller knobs located around the top of your spa. Each one will let you add a mixture of air with the jet pressure. This is accomplished by rotating the air venturi knob to the left (counter-clockwise) to increase the amount of airflow through the jets. To decrease the amount of airflow through the jets, rotate the handle to the right (clockwise).

Hydro Streamer Waterfall

Your spa may include two to eight streamer waterfalls. When the booster pump is on, turn the 1" diverter knob to adjust the rate of flow to the waterfall jets.

The waterfall jet faces are not adjustable. Do not turn the jet faces because you may accidentally remove them.

Always shut off water to the hydro streamer jets before you place the cover on the spa. Water from the hydro streamer jets sprays in an arc that is higher than the top surface of the spa. When water from the hydro streamer sprays the bottom of the cover, it will collect and run to the edge of the spa and drip over the top.

Adjustable Therapy System

Pump On / Off Button

Press this button once to turn on the ATS pump. The POWER ON light on the control panel will appear. Press this button a second time to turn off the ATS pump. The ATS pump must be on before you can use any other features of this system.

Pulse Mode Button

Press this button once to turn on the Pulse Mode. The first time it is pressed, the orange LED in position number 1 will light, indicating the number one pulse mode. Each press of either the **Up** or **Down** button will move the orange LED up or down to the next pulse mode. There are seven pulse modes in all. See the image at right.

Allow one second between each button press. Pressing the button quickly may cause improper operation. To turn the Pulse Mode off and return to normal pump operation, press the **Pulse Mode** button a second time.

Up / Down Buttons

As described above, these buttons allow you to cycle through seven massage modes. Each mode offers a different pulsating massage. Some modes are faster than others, so just cycle through them to find the massage you like best.

Time Reset

Pulse Mode will normally run for 15 minutes then automatically shut off. For another 15-minute session, press the **Pump On / Off** button and the **Pulse Mode** button. A light will blink and the pump will run on high-speed mode as part of a 15-minute cool down period. After that, the pump will stop automatically and the LED light on the panel will continue to blink

Pulse Modes

7 — Gentle & powerful alternating bursts

6 — Quick powerful, continuous bursts

5 — 3 gentle bursts followed by 1 vigorous burst

4 — Swift rolling bursts

3 — Accelerated continuous bursts

2 — Medium continuous burst

1 — Low rolling bursts

for one minute then shut off automatically. After the second 15-minute session, the system will run through a cool down cycle for up to two hours. In this cool down mode, the you will only be able to operate the pump (by again pressing the **Pump On / Off** button). However, the massage mode will remain off until the cool down mode is completed.
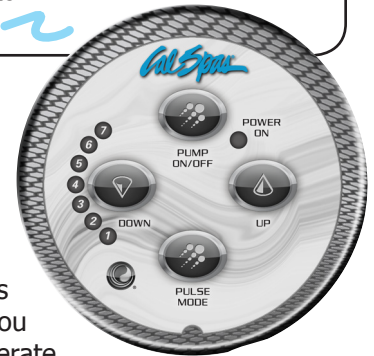
Resetting Pulse Mode

Pulse Mode will shut off for two hours unless reset. During this time the pump will run at a maximum speed. To reset Pulse Mode, press the **Pump On / Off** to turn off the ATS pump, the press the **Pulse Mode** button once. The power light will flash to indicate Pulse Mode has been reset.

Microsilk Therapy System

The optional Microsilk feature is available with Connect and Escape spas only.

The Microsilk system generates microbubbles that are 50 to 100 times smaller than ordinary air bubbles. The microbubbles are oxygen-rich and help hydrate your skin.

Press the **Aux** button to start the Microsilk pump. When the spa water becomes saturated with the microbubbles, it will turn white to create an ideal Microsilk environment.

The Microsilk pump will run for 15 minutes or until you press **Aux** to turn it off. When the pump cycle finishes, you can press **Aux** to start the Microsilk pump again.

Pure Cure™ Water Sanitizer

The Pure Cure™ water sanitizer is an optional water purification system installed at the factory. It eradicates germs in the water that are resistant to chlorine-based chemicals using high intensity UV light. Although the water sanitizer works automatically with your spa, you will still need to test for chlorine or bromine and occasionally replenish it to return the sanitizer level to the baseline.

For spas without a circulation pump, pump 1 will run at low speed and the water sanitizer will run during filtration.

For spas with a circulation pump, the water sanitizer will run with the circulation pump.

The spa's control system is factory-programmed with one filter cycle that will run in the evening when energy rates are often lower. The time and duration of the filter cycle can be set according to your needs. In addition, a second filter cycle can be enabled. Filtration time may need to be increased with heavy bather load.

See instructions for setting filtration cycles on page 22 or page 29.

The water sanitizer is virtually maintenance-free. Once a year the UV light needs to be replaced. See page 46 for instructions. **However, the water sanitizer is not a user-serviceable item and maintenance must be performed by a spa technician. Have your service technician consult the manufacturer's instruction and service manual.**

Ozonator

The ozone generator releases ozone into the spa water. You will still need to test for chlorine or bromine and occasionally replenish it to return the sanitizer level to the baseline.

For spas without a circulation pump, pump 1 will run at low speed and the ozonator will run during filtration.

For spas with a circulation pump, the ozonator will run with the circulation pump.

The spa's control system is factory-programmed with one filter cycle that will run in the evening when energy rates are often lower. The time and duration of the filter cycle can be set according to your needs. In addition, a second filter cycle can be enabled. Filtration time may need to be increased with heavy bather load.

See instructions for setting filtration cycles on page 22 or page 29.

Bromine Generator

The bromine generator automatically generates and releases free bromine into the spa water. You will still need to test for bromine and occasionally adjust it to return the bromine level to the baseline.

Start-up/Operating Instructions

Be certain that you start with a clean spa. It should be free of contaminants and other residues that can accumulate on the sides and/or around the jets. It is also important to only use spa cleaning products that have **no phosphates** or phosphonic acids since phosphates will deplete free bromine and are super-food for algae. Always start your spa with a clean filter before filling with water.

If the water source is "well water" or a non-municipal water source, have your water tested for Total Dissolved Solids (TDS) and metals. Water with high TDS is likely to have higher metal content and will need a metal remover to decrease the metals and ensure a successful start. This test can be done by your local spa dealer. The ideal range for your start-up TDS is between 50 and 200 ppm - mg/L. If TDS from your source water is above 500 ppm, a metal remover is strongly recommended.

DO NOT FILL THE SPA WITH SOFT WATER.

1. Using your PURE FILL Spa Pre-Filter, fill your spa with water to the recommended level (six inches below the lip of the spa) and DO NOT FILL WITH WATER FROM A "RESIDENTIAL WATER SOFTENER."

2. Before starting the system, balance your water chemistry to ensure a successful start up. Ideal ranges are as follows:

	Ideal Range	
	Minimum	Maximum
pH	7.2	7.6
Total alkalinity	80 ppm	120 ppm
Calcium hardness	150 ppm	250 ppm
Phosphates	0 ppb	30 ppb

Use the phosphate test kit included with your system. Bromide residuals will be significantly reduced if phosphate levels are high. If phosphates are detected, purchase a phosphate remover and follow the directions accordingly. **Any** phosphates in your spa will reduce bromine levels.

3. Determine the level of "NaBr" (Sodium Bromide) required for your spa size. NaBr should be added at a rate of 1.2 lbs per 100 gallons or approximately 1300-1500 ppm.

    Example: For a 500 gallon spa add approximately 6 lbs of NaBr. **1.2 lbs x (5) 500 gallons = 6lbs NaBr.**

4. Turn the jets on high speed. Sprinkle the NaBr across the surface of the water to evenly distribute the NaBr in the spa and circulate for 30 minutes.

5. Test the Sodium Bromide concentration with the Tru-Blu NaBr test kit. The correct amount of NaBr will secure a reading of between 1300-1500 ppm.

6. Adjust the filtration time to circulate for 8 hours every 24 hours on a 2 speed pump.

7. For a spa between 300-500 gallons, start at a power level of "6" and then press the "boost" feature. This will accelerate the production of bromine for 8 hours. Wait for proper bromine levels before entering the spa.

8. Always keep your bromine level between 3-5ppm. Test the bromine level after 24 hours and adjust the power setting accordingly. An occasional heavier bather load may require the "boost" feature. Always keep your spa or hot tub water in balance.

Maintaining the Bromine Level

Maintaining the pH and the alkalinity is part of being a spa owner. The bromine generator requires you to determine your power setting based upon your circulation time and your spa usage. It requires a minimum of eight hours of circulation per day. If the spa is not circulating, the bromine generator is not generating bromine. If you find that you are having trouble maintaining the desired level, make sure the spa is circulating the required amount.

A spa that is frequently used will require a higher power setting. If you have a bromine reading that is too high or too low, adjust the **DECREASE / INCREASE** control accordingly. Depending on the amount usage, circulation time, and type of spa, each spa owner's setting will be different.

The bromine generator can go up to 12 months before a drain and fill is required, unlike non-equipped spas that require it every three months. This is because the bromine generator does not add unwanted chemical by-products like traditional chemicals do.

Sodium bromide is not the only contributor to the TDS count in your water. Over time, the TDS count in your water will rise (from such things as residuals from other chemicals and minerals, and unfilterable material). Test the TDS every few months to make certain it stays within range.

Shower prior to entering any hot tub or spa. This will help prevent phosphate contamination and reduce the demand on the bromine.

Shocking your tub is recommended after heavy bather load.

Intelligent Controller Codes for the Bromine Generator

LC (Low Conductivity) will appear when the unit detects that the conductivity is below the minimum level. At start-up, you will experience this if you have not added the Sodium Bromide. Check the Sodium Bromide level in the water and add the appropriate amount per your spa. If the NaBr level is correct, the cell may be experiencing scaling. In this case, you will want to clean the cell. Please consult with your spa dealer for further information.

bSt (Boost) will appear when the BOOST feature is on. Depressing this key once will increase the bromine production to twice that of the last bromine production setting for the next *accumulated eight hours of pump circulation time.* The BOOST cycle should be depressed after heavy bather load or usage.

OE (Open Element) will appear if the system controller is unable to detect a connection to the electrode cell. You may see this if the electrode is not connected properly, there is inadequate water flow, or the cell is not functioning due to unknown circumstances. This may require that the cell be evaluated and possibly cleaned of scale build-up or even replaced. If this happens, please consult with your spa dealer.

HC (High Current) will appear when the TDS (Total Dissolved Solids) is too high resulting in High Current at the electrode cell. If this reading appears at or near start up of your system, check your source water for TDS and proper NaBr readings. If this reading appears after an extended period of operation, draining 25% of the water and refilling can help reduce TDS levels. If "HC" remains present, consult with your spa dealer for a comprehensive water analysis and recommended course of action.
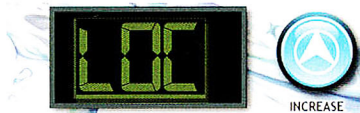
LOC: Press increase for 3 seconds to unlock

LOC (Locked) Your Top Side controller includes a "LOC" feature which ensures that the system is "Locked" when not being utilized to manage your Spa's water. Your system will automatically produce bromine when necessary. This feature is simply for your protection. In order to "Unlock" simply depress the "increase" key on your unit for 3 seconds.

Troubleshooting Water Clarity Problems

Problem	Probable Causes	Possible Solutions
Cloudy Water	• Dirty filter • Excessive oils / organic matter • Improper sanitization • Suspended particles / organic matter • Overused or old water	• Clean filter • Shock spa with sanitizer • Add sanitizer • Adjust pH and/or alkalinity to recommended range • Run jet pump and clean filter • Drain and refill the spa
Water Odor	• Excessive organics in water • Improper sanitization • Low pH	• Shock spa with sanitizer • Add sanitizer • Adjust pH to recommended range
Chlorine Odor	• Chloramine level too high • Low pH	• Shock spa with sanitizer • Adjust pH to recommended range
Musty Odor	• Bacteria or algae growth	• Shock spa with sanitizer – if problem is visible or persistent, drain, clean and refill the spa
Organic buildup / scum ring around spa	• Buildup of oils and dirt	• Wipe off scum with clean rag – if severe, drain the spa, use a spa surface and tile cleaner to remove the scum and refill the spa
Algae Growth	• High pH • Low sanitizer level	• Shock spa with sanitizer and adjust pH • Shock spa with sanitizer and maintain sanitizer level
Eye Irritation	• Low pH • Low sanitizer level	• Adjust pH • Shock spa with sanitizer and maintain sanitizer level
Skin Irritation / Rash	• Unsanitary water • Free chlorine level above 5 ppm	• Shock spa with sanitizer and maintain sanitizer level • Allow free chlorine level to drop below 5 ppm before spa use
Stains	• Total alkalinity and/or pH too low • High iron or copper in source water	• Adjust total alkalinity and/or pH • Use a stain and scale inhibitor
Scale	• High calcium content in water – total alkalinity and pH too high	• Adjust total alkalinity and pH – if scale requires removal, drain the spa, scrub off the scale, refill the spa and balance the water • Use a stain and scale inhibitor

Cleaning and Maintenance

Removing and Reseating the Pillows

You can remove the pillows for cleaning and maintenance quickly and easily. This method works for all types of pillows.

Grab the lower edge of the pillow with both hands firmly and pull up. As you do this, the pillow inserts will pop out of the holes.

Reseat the pillows by aligning the pillow inserts with the holes and striking the pillow hard enough to insert the pegs back into the holes.

Hold lower edge

Pull up firmly

Align inserts with holes

Strike pillow to snap in insert
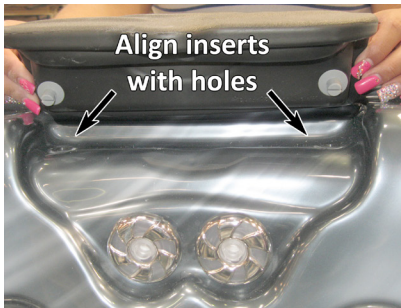
Jet Removal and Replacement

Jets can be easily removed for cleaning.

Screw-in jet removal

Grasp the outer rim of the jet and turn it counter-clockwise. The jet will unscrew from the fitting until it is free.

To replace the jet, place it in the fitting and turn it clockwise until it is snug in place and it can be rotated freely about half a turn. Do not overtighten the jet.
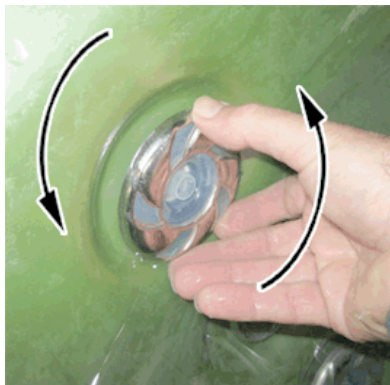
Snap-in SQR jet removal

Grasp the outer rim of the jet and turn it counter-clockwise until it completely stops. You may feel it slightly loosen pop out a bit from the fixture. Pull the jet out from the jet fixture. The jet will be very snug and may require some force to remove it. DO NOT PRY OUT JETS.

To replace any jet, place it in the fitting and turn it clockwise until it snaps in and can be rotated freely about half a turn. Do not overtighten the jet.

Draining Your Portable Spa

Your spa should be drained every four to six months for cleaning and maintenance and refilled with fresh tap water. See page 45 for instructions on cleaning the shell, cover, and pillows. See page 12 for instructions on refilling your spa. Before you begin, turn off power to the spa at the breaker and remove all filters.

1. Locate your drain.

For spas with drain inside the spa

Using a Phillips screwdriver, remove the screws to the access panel and open it. Locate the drain as shown below.

For spas with cabinet mounted drain

Pull the knob out of the cabinet. The cabinet drain is screwed into the drain pull knob.

2. Remove the cap

Make sure the valve is in the closed position, then unscrew and remove the cap.

For spas with drain inside the spa

Closed

Open

For spas with cabinet mounted drains

Make sure valve is closed before unscrewing the cap.
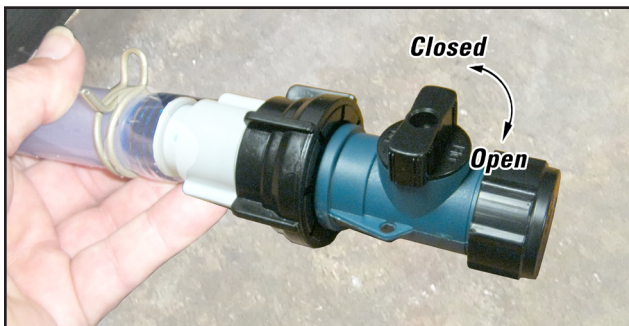
3. Connect valve to a garden hose.

Attach a garden hose to the hose-bib fixture. Place the other end of the garden hose where you would like the water to drain.

4. Drain the spa.

Turn the valve on the hose-bib fixture to open the drain. When the spa has drained completely, turn the valve on the hose-bib fixture, remove garden hose, and replace the cap.

For all spas

Attach hose and open valve.
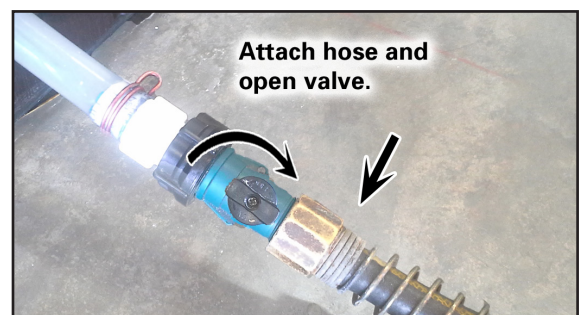
Winterizing (Cold Climate Draining)

In many areas of the country, the temperature drops below 32°F (0°C). We recommend that you always have your spa full of water and running at normal spa temperatures (80°F to 100°F, 26.7°C to 37.8°C). This will help reduce the risk of freezing in your spa and your spa's equipment.

Warning: If you find the need to drain your spa, be aware of the potential of freezing in your spas equipment and plumbing. Even if the directions below are followed perfectly, there is no guarantee that your spa will not suffer freeze damage. Freeze damage is not covered by your warranty.

1. Remove the filter baskets and filters.
2. Drain your spa completely as described in the instructions above.
3. Vacuum water from the spa's main drain and from the jets with a wet/dry vacuum.
4. Open the bleeder valves on the pumps.
5. Disconnect the unions from both sides of all pumps.
6. Blow any remaining water out of the jets and equipment area with the wet/dry vacuum.
7. When the spa has completely finished draining, close the bleeder valves and re-connect the unions on all pumps. Replace the filters and filter baskets.

Cover your spa with a good spa cover and an all-weather tarp to ensure that neither rain nor snow enters the spa.

Vacation Care

You can leave your spa unattended for up to two weeks if you follow these instructions.

ALWAYS lock your cover using the cover locks if you plan to be away from home and the spa is filled with water.

1. Select the Low Range temp choice used for vacation mode. (See instructions on page 19 or page 28 for vacation setting.)
2. Adjust the pH.
3. Shock the water (add either chlorine or bromine sanitizer).
4. When you return, check and adjust the pH and shock the water.

If you will not be using your spa for longer than 14 days and a spa maintenance service is not available, we strongly recommend you drain or winterize your spa.

Cleaning and Maintenance

Spa Cover

Important! Keep the spa covered when not in use!

- Covered spas will use less electricity in maintaining your set temperature.
- Covering your spa will protect your spa's finish from the sun's ultraviolet rays.
- You are required to keep the spa covered to maintain warranty coverage.
- Covering your spa helps prevent children from drowning in the spa.

See the manual enclosed with your cover for instructions on mounting the locks and how to lock and unlock the cover.

In addition, while the spa cover is rigid, it is not designed to support any weight. Therefore, as a safety precaution and to preserve the life of your cover, you must not sit, stand, or lie on it, nor should you place objects of any kind on top of it.

Filter Cleaning

The filter is the part of your spa that removes the debris from the water and needs to be cleaned on a regular basis to maximize your spa's filtering performance and heating efficiency.

In addition to spraying off the filter weekly to remove surface debris, your filter should be deep cleaned periodically to dissolve scale and particles that get lodged deep within the filter fibers and impede the filtration process. Even if the filter looks clean, scale and particles can clog the fibers and prevent water from flowing through the filter resulting in the most common spa problem—no heat, caused by a dirty filter.

We recommend you clean your filter once a month and replace it once a year or as necessary.

It is extremely important that you never run the spa without a filter. There is a possibility that debris may be sucked into the plumbing through the filter well.

Set the spa in Hold Mode before you remove the filter. Hold Mode pauses all spa operations for 60 minutes for service functions like cleaning or replacing the filter. See page 21 or page 29 for instructions on using Hold Mode.

Cleaning the filter

1. Remove the filter by unscrewing it and pulling it up and out.

2. Place the dirty filter into a bucket of water deep enough to cover the filter. Add 8 oz of liquid filter cleaner to the bucket of water.

   Note: It is a good idea to keep a spare filter to use in the spa while the dirty filter is being deep cleaned. This way, you can rotate the filters and both will last longer.

3. Soak the filter for a minimum of 24 hours.

4. Spray the filter with a water hose. Spray each pleat carefully.

5. Reinstall the filter. Do not overtighten.

Cleaning Your Spa

Spa Cover and Pillows

Due to the constant punishment your spa cover and pillows receive, you should protect them by applying a vinyl and leather cleaner as part of your monthly maintenance plan. Use a product that is specifically designed to protect spa covers and pillows from chemical and ultraviolet light damage without leaving an oily residue behind that is normally associated with common automotive vinyl protectants.

Warning: ***Do not*** use automotive vinyl protectants on spa covers or pillows. These products are generally oil-based and will cause severe water clarity issues that are difficult to correct.

Spa Shell

Each time you drain your spa, before you refill it you should clean your spa shell with an all-purpose cleaner and apply a coat of surface protectant.

Use a low detergent, non-abrasive cleaner specifically formulated to clean the spa without damaging its acrylic finish.

Use a non-oil based surface protectant that is specifically formulated to protect the spa's finish from the chemicals and minerals associated with normal spa use.

Changing the UV Lamp

⚠️ **CAUTION: Always turn off power to the spa at the GFCI prior to any maintenance.**

Note: Periodically you should the check the light on the transformer for the UV light system. The transformer is mounted in the spa equipment area close to the system control box. When it is operating normally, the light will be green. When it requires maintenance, it will be red. This usually happens when the UV lamp needs replacing. The UV lamp is a wearable part that needs replacing about once a year.

1	Water-proof strainer
2	Aluminum nut
3	Lamp socket and lead wire
4	Germicidal UV lamp
5	Rubber O-ring
6	Quartz thimble
7	Chamber
8	Clip
9	Ballast
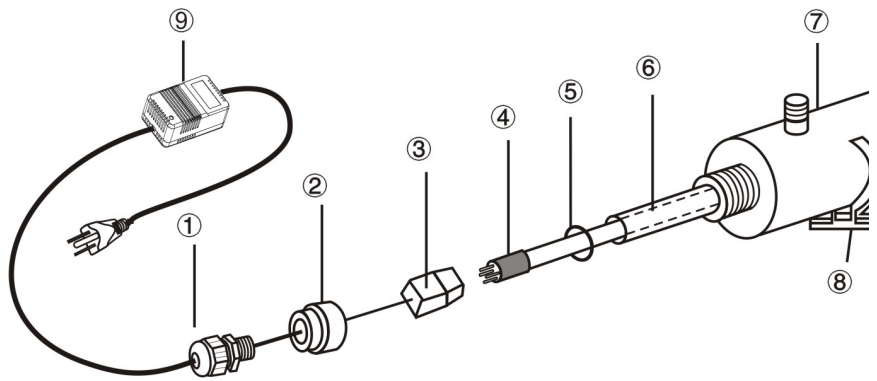
See page 54 for part numbers for replacement parts.

To remove the UV lamp

1. Disconnect power.

2. Turn water off and open down stream of system to relieve pressure.

3. Cut the tie wrap that attaches the UV lamp chamber to the spa frame.

4. Remove the water-proof strainer (1) and unscrew the aluminum nut (2).

5. Pull out the lamp (4) approximately 2" from the chamber (7).

6. While holding the lamp end, remove the lamp socket (3) from the end now exposed.

7. Remove the lamp from the chamber.

8. Remove the O-ring (5) from the end of the quartz thimble (6).

9. Remove the quartz thimble.

To reinstall the replacement UV lamp, follow these steps in reverse.
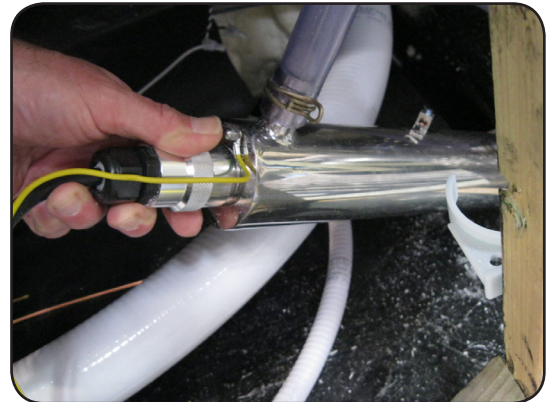
When replacement UV lamp has been installed, conduct a final leak check:

1. Restore power to the spa at the GFCI.

2. Turn on the pump and let water run for five minutes to check for leaks.

Maintenance Schedule

Each time you refill the spa	Follow the section "Filling and Powering Up Your Portable Spa" on page 12.
Prior to each use	Test the spa water using either test strips a reagent test kit. Adjust chemical levels as necessary.
Once a week	Test the spa water using either test strips a reagent test kit. Adjust chemical levels as necessary. If your water source is high in calcium, add stain and scale preventer.
Once a month	Deep clean your spa's filter. (Follow filter cleaning instruction at beginning of this section)
Every two to four months	Change the spa water. How often you change the water depends on how much you use the spa. When you change the water, you will need to: • Clean and polish the acrylic surface (see page 45) • Clean and treat the spa cover and pillows (see page 45) • Deep clean the filter (see page 44) • Refill your spa (see page 12)
Once a year	Replace filter cartridges if the pleats appear frayed. If you use the Cal Pure UV water sanitizer, you will need to replace the UV lamp (see page 46 for UV lamp maintenance)

Using the Entertainment System

The digital media locker is fully integrated with your Cal Spa. It will accommodate any digital device, such as iPhones, smart phones, and MP3 players, that is USB or Bluetooth capable.

The docking station comes with its own owner's manual. It describes parts included, installation, and proper use. Owners of this system must read the manufacturer's instructions prior to operating this unit. The instructions are shipped inside the docking station behind the remote control.

The instructions contained in this manual describe only basic functions. See the manufacturer's operating instructions for other features and functions.

Although the media locker features a locking door with seals, it is **water resistant** and **NOT waterproof**. You must take every precaution to keep the interior of the media locker dry.

- Make sure that hands are dry before coming in contact with the media locker.

- Always CLOSE AND LOCK the protective door.

Water damage caused by negligence or improper use is not covered under warranty.

Note: The digital media locker comes with a remote control and does NOT INCLUDE an MP3 player such as an iPod.

If you have trouble pairing the devices:

- Re-read the instructions and follow them carefully. You may have missed an important detail.

- Make sure the red power light inside the docking bay is OFF before you begin.

- PRESS and HOLD the **Mode** button on the remote until it reads PAIR. Do not release the **Mode** button.

- Do not press the **Power** button inside the docking station until the remote reads PAIR.

- Press and hold the **Power** button for *NO MORE* than five seconds. Otherwise, the devices will not pair.

Aquatic AV AQ-DM-5UBT

Synchronizing (Pairing) the Remote Control with the Media Locker

Before you can use the remote control with the docking station, they need to be synchronized, or paired. Follow the simple instructions below.

1. Before you begin, make sure the docking bay is **OFF**. If the red **Power** light inside the docking bay is on, press it once to turn it off.

2. Press the red **Power** button on the remote.

3. Press and hold the **Mode** button on the remote. The display on the remote will read PAIR.

4. While still holding the **Mode** button, press and hold the **Power** button inside the docking station for five seconds.
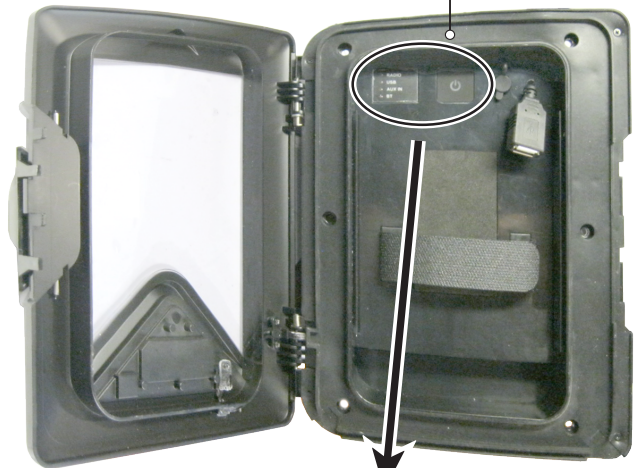
The display on the remote will read WELCOME or show a mode position such as RADIO.

When the remote and docking bay are paired, the power button light will turn blue.

If they do not pair the first time, repeat these four steps until it is successful.

Listening to Devices

There are three ways to connect your device to the media locker: With the USB connection, Bluetooth connection, and the auxiliary input.

1.   Connecting via USB

The Aquatic AV digital media locker comes with one USB connector for Apple devices. If you have another kind of device, you will need to supply your own USB connector, such as the type shown below.

Apple USB connector   USB micro B connector

1. Attach your device to the USB cable inside the digital media locker using the appropriate USB connector.

2. Secure the device with the anchor straps.

3. Close and lock the media locker's protective door.

4. Press **POWER** on the remote control or Power button on the locker to turn it ON.

5. Press **MODE** on the remote control to select USB mode. Use the buttons as shown in the remote function chart.

Note: When USB devices are connected to the USB input, the device's battery will charge.

Search for Songs and Playlists

Apple devices

1. Press **SEARCH** to enter iPod searching mode.

2. Once in searching mode, the remote will display 'Playlist'. Continue to press **SEARCH** to scroll through the search modes below:

   1) Playlist 2) Artist 3) Album 4) Song 5) Genre 6) Composer 7) Audio Book

3. Press **PLAY/PAUSE** To select the desired search mode.

4. Press **Volume UP/DOWN** to scroll through your media in the selected search mode.

5. Once you find the desired media, press **PLAY/ PAUSE** to make your selection. If your selection is a song, it will begin to play. If you select a playlist, artist, album, genre, composer or audio book, the songs in the selected folder will be visible. Press **PLAY/PAUSE** to play the desired song within the folder.

Other USB devices

1. Press **SEARCH** to enter the USB searching mode.

2. Press **Volume UP/DOWN** to scroll through the folders on your USB device. To select a folder, press the **PLAY/PAUSE** button.

3. Press **Volume UP/DOWN** to scroll through the songs in the folder and press **PLAY/PAUSE** to play the desired song.

2.   Connecting via Bluetooth

1. Switch on your Bluetooth device.

2. Select 'AQUATIC AV' from the list of available devices to pair (no password is needed).

Only one Bluetooth device can be paired with the Digital Media Locker at any time.

Bluetooth mode will be activated once a Bluetooth device is linked. Play the song from device and the sound will play through the Digital Media Locker.

- Press **PLAY/PAUSE** to play or pause the song.

- Press **FAST REWIND** or **FORWARD** buttons to play previous/next song file.

Track and volume can be controlled directly from your Bluetooth device, remote control or door controls.

3.   Connecting via Auxiliary Input

When you connect your device via the auxiliary input, you play media directly to the audio input of the media locker. The remote control can not control your device when it is connected through the auxiliary input. You will need a 3.5 mm audio connector as shown below.

3.5 mm audio cable

Using the Entertainment System

1. Connect your MP3 device to the 3.5 mm jack input.

2. Secure the device with the anchor straps.

3. Close and lock the media locker's protective door.

4. Press **POWER** on the remote control or the **POWER** button on the locker to turn it ON.

5. Press **MODE** on the remote control to select 'AUX IN' mode.

Only one auxiliary input (3.5 mm jack) can be used at any one time.

Listening to FM Radio

Press **MODE** on remote control to switch to FM radio mode. If this is the first time you listen to FM radio, the default frequency will be 87.5MHz, as shown on the remote LCD.

To scan or seek FM radio channels, press **FAST REWIND** or **FAST FORWARD** to seek another station. Press and hold either **FAST REWIND** or **FAST FORWARD** for manual tuning back or forward.

To save the current radio station into memory, press and hold the **1, 2,** or **3** button for more than 2 seconds. The station will be stored to that button. Press the **1, 2,** or **3** button to listen to the preset station.

Remote and Keypad Functions

All of the functions on remote control and the keypad on the media locker's door are identical.

For a detailed description of all key functions, see the manual for the Aquatic AV media locker.

Closing and Locking the Door

Always CLOSE and LOCK the media locker door after you place or remove a media device inside it.

Slide the clasp down to lock the door as shown at right. Make sure the door is firmly pressed into the watertight seal before you slide the lock into place.

Water damage caused by negligence or improper use is not covered under warranty.

Slide down to lock

Search functions and audio menu

Volume UP

Fast rewind / previous track

Volume DOWN

In USB mode: Folder functions

In FM mode: radio presets

Mode (select function)

Play / pause

Fast forward / next track

Random playback

Power

Using the Freedom Sound System

The Freedom Sound System™ entertainment option contains a Bluetooth-enabled speaker system that is available for certain Cal Spa models. Any Bluetooth-enabled device can be used to play audio through your spa.

Before you can use the sound system, you need to pair the Bluetooth module with your device. The Bluetooth module is installed within the spa cabinet. Everything can be done with your device. The example shown below is from an iPhone device. Your device may appear differently. Before you begin, make sure Bluetooth in enabled on your device.

1. Select Bluetooth from your device's option list.
2. Select **SWA8-1BT...** from the list of available devices to pair.
3. Allow your device to pair with the spa's Bluetooth module.
4. When the devices have been connected, the device **SWA8-1BT...** will be highlighted.

Only one Bluetooth device can be paired with the Freedom Sound System™ at any time.

Once your device is paired and connected, all sounds from your device will be played through the sound system, including system sounds and telephone.
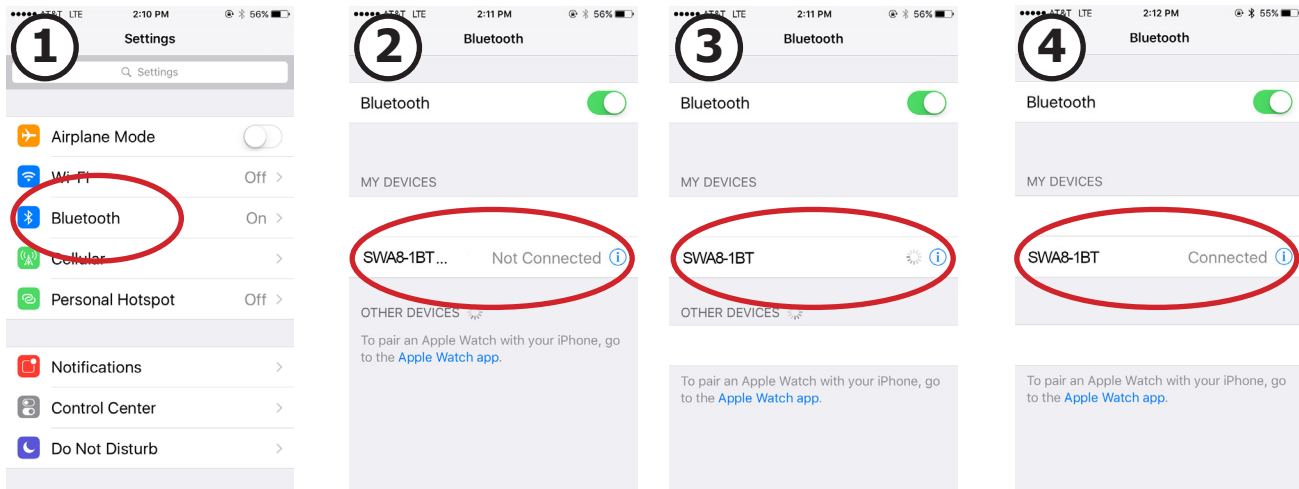
Keeping Fit With Your Swim Spa

Jetstream Propulsion System

Use the control panel to start and stop the Jetstream Propulsion System. The **JETS 1** and **JETS 2** buttons control the top and bottom jets.

Use the air venturi valves to inject air in the water streams.

Air Venturi Valves
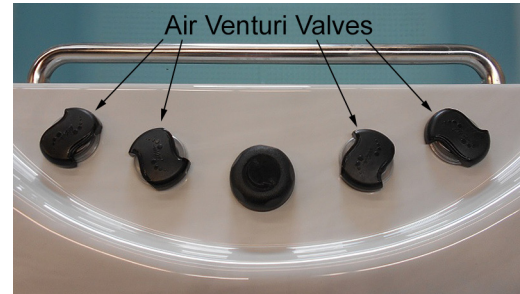
Assembling the Swim Tether

The swim tether pole has three pieces and assembles easily. Slide the ends of the top and middle sections into the middle and bottom sections as shown at right.

Insert the tether in the anchor hole when you are ready to use it.

Buckle the strap around your waist. It is easily adjustable and can accommodate most sizes.
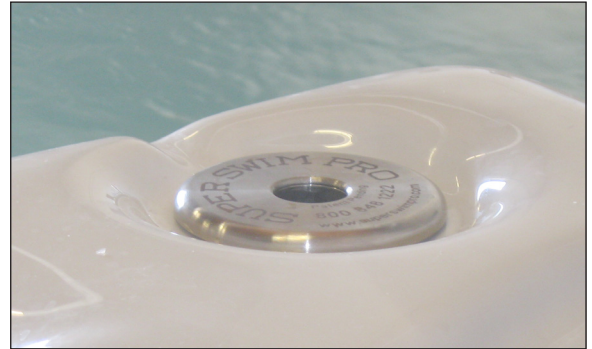
Using the Exercise Equipment

IMPORTANT: Always consult your physician before starting any exercise activity or program. The Ultimate Fitness series spas feature rubber exercise bands. When stretched, these bands create a high tension condition. Improper use or failure to connect the exercise bands properly may cause injury. Always inspect all of the exercise equipment prior to beginning any exercise. Do not use any damaged equipment.

This equipment attaches to the exercise anchors located on the spa walls.

Connecting the Exercise Equipment

The drawings below show different ways the exercise kit can be connected depending on the exercises you wish to do.

For 14 foot spas and model F1222

The exercise kit contains:

- Two hand grips
- Two ankle braces
- Two 6" elastic bands
- Two 18" elastic bands
- Two 25" elastic bands
- Two rowing bars

For 16 and 17 foot spas

The exercise kit contains:

- Two hand grips
- Two ankle braces
- Two 18" elastic bands
- Two 25" elastic bands
- Two 56" elastic bands
- Two rowing bars

When attaching the rowing bar, place the hook into the eye pad as shown.

Elastic bands attach to the eye pad as shown.
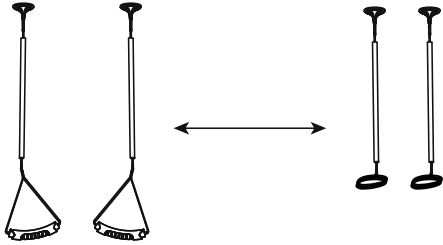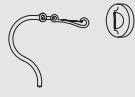
All elastic bands can be connected to either end of the spa and used with hand grips or ankle braces.

Typical configuration for F1222 spa

18" band

56" bands

Typical configuration for 14' spa

6" bands with hand grips

18" band

23" bands
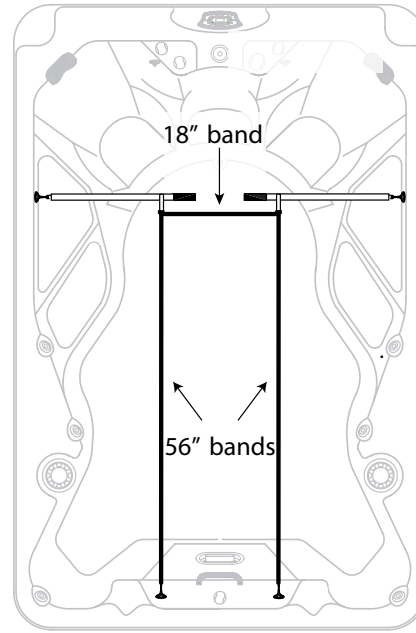
Typical configuration for 16' and 17' spa

56" bands with hand grips

25" bands

18" band
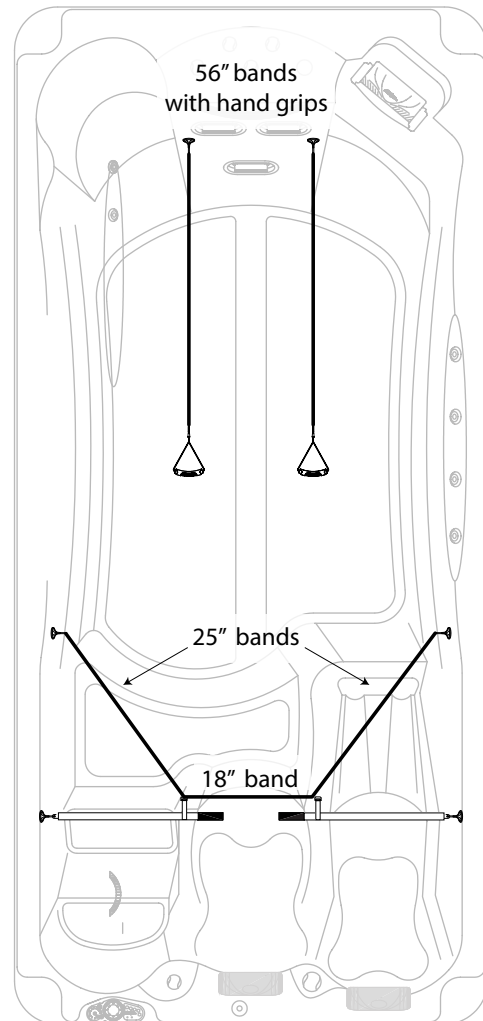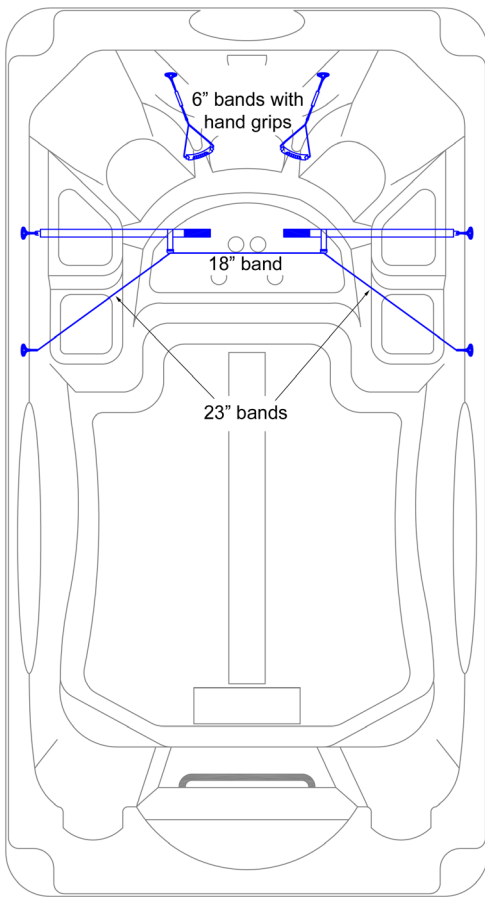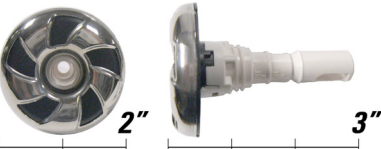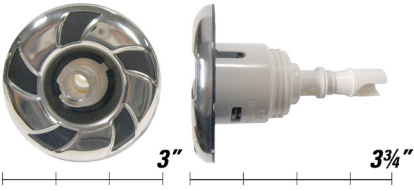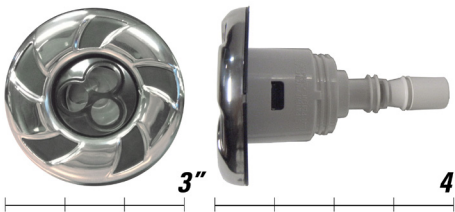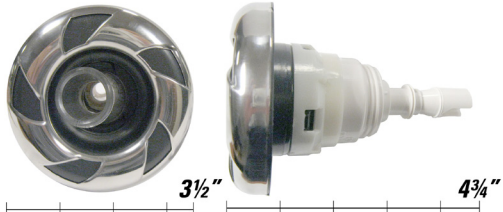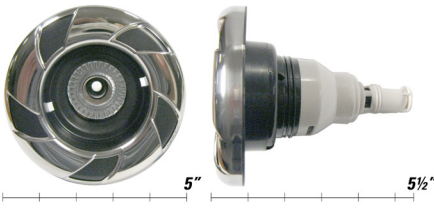
Appendix

Note: All Cal Spa models use a combination of screw-in and snap-in jet inserts where removable jets are used.

Replacement Parts

Please visit www.quickspaparts.com to order your replacement parts.

Screw-in Jet Inserts	
Description	**Used by**
ELE 2" Euro No Eyeball PLUCS2295021SL	Escape Escape+
ED 2" Euro Directional PLUCS2295051SL	Escape Escape+
MED 3" XL Cluster Storm Directional PLUCS2295031SL	Escape Escape+
mfd 3" Micro Flow Directional PLUCS2295061SL	Escape Escape+

Screw-in Jet Inserts	
Description	**Used by**
MM 3" Mini Storm Massage PLUCS2297061SL-8	Escape Escape+
MFD 3.5" Maxi Flow Directional PLUCS2295091SL	Escape Escape+
PSD 5" Power Storm PLUCS2295131SL	Escape Escape+

If you need jet bodies, go to www.quickspaparts.com or refer to the Cal Spa Replacement Parts Catalog, which can be downloaded from www.calspas.com/replacement-parts.

Please visit www.quickspaparts.com to order your replacement parts.

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Appendix

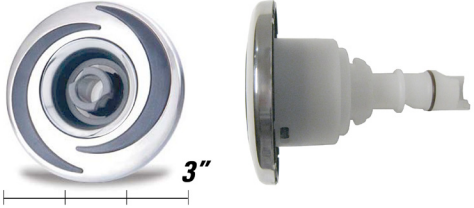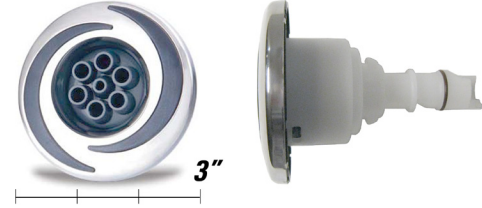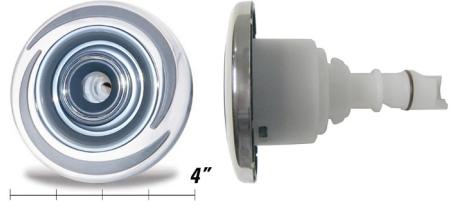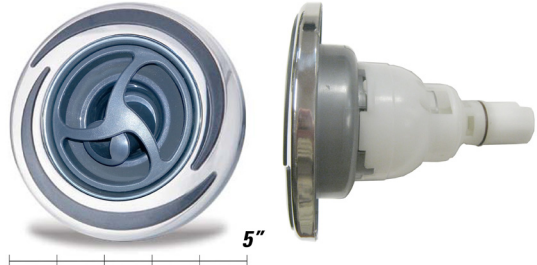| Screw-in Jet Inserts	
Description	Used by
ET 2" Cluster Storm Twin PLUCS2295161SL	Escape Escape+
MMP 3" Mini Multi-Massage PLUCS2295171SL	Escape Escape+
PSTR 5" Power Storm Twin Roto PLUCS2295181SL	Escape Escape+
PSR 5" Power Storm Rifled PLUCS2295141SL	Escape Escape+

5" 5½"

Screw-in Jet Inserts	
Description	Used by
PST 5" Power Storm Wagon Wheel PLUCS2295191SL	Escape Escape+
T 5" Tornado Adjustable PLUCS2295201SL	Escape Escape+

5" 5½"

5" 6"

If you need jet bodies, go to www.quickspaparts.com or refer to the Cal Spa Replacement Parts Catalog, which can be downloaded from www.calspas.com/replacement-parts.

Appendix

Snap-in SQR Jet Inserts	
Description	**Used by**
SQN candy cane, 2" neck jet, 100% shut-off **Candy cane w/clear center** PLU29923-144-000	Used by: Escape Escape+ Platinum Fitness
SQN halo, 2" neck jet, 100% shut-off **Halo w/ graphite gray center** PLU29520-611-500	Used by: Patio Patio+
SQ2D, 2" euro jet directional **Halo w/ graphite gray eyeball** PLU29520-011-500	Used by: Patio Patio+
SQ2R, 2" rotating jet **Stainless steel w/ black rotors** PLU29523-022-100	Used by: Escape Escape+

Snap-in SQR Jet Inserts	
Description	**Used by**
SQ3D, 3" directional mini jet **Halo w/ graphite eyeball** PLU29530-111-500	Used by: Patio Patio+
SQ3M halo, 3" mini massage jet **Halo w/ graphite center** PLU29530-141-500	Used by: Patio Patio+
SQ4D, 4" directional maxi flow jet **Halo w/ graphite gray eyeball** PLU29540-111-500	Used by: Patio Patio+
SQ5R, 5" rotational jet **Halo w/ graphite gray eyeball** PLU29550-081-500	Used by: Patio Patio+

If you need jet bodies, go to www.quickspaparts.com or refer to the Cal Spa Replacement Parts Catalog, which can be downloaded from www.calspas.com/replacement-parts.

Appendix

Snap-in SQR Jet Inserts	
Description	**Used by**
MM, 7" ultra blaster **Stainless steel w/ black center** PLU23570-142-400	Used by: Escape Escape+

7"

Swim Jet
River Jet Assembly Black with Stainless Steel Rim 210-5101SCS PLU210-5101SCS
Jet Insert 3" Pro-Loc SQ3R Mini Jet Roto PLU29530-121-500
Jet Insert 3-5" Pro-Loc (SQ3.5R) Mini Twin Roto PLU29530-031-500

If you need jet bodies, go to www.quickspaparts.com or refer to the Cal Spa Replacement Parts Catalog, which can be downloaded from www.calspas.com/replacement-parts.

Cal Spas
www.calspas.com

Appendix

Rain Jet

Rain Jet

PLU23028-292-00

Water Feature

SQL, SQR dual hydrostream (#25269-404-000) - includes jet insert, jet body, gasket and nut

PLU25269-404-000

Waterfalls

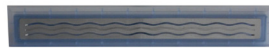|	
Waterfall 12-3/8" W/ Logo, LED (Round) Textured (CS675952T8L-1) '14 PLU21800828	
Waterfall 12-3/8" No Logo, LED (Round) Textured (CS675953T8L-1) '14 PLU21800829	
Waterfall 20" Clear, LED LIT25269-009-000	

Pillows

Cascade Pillow No Insert Black ACC01401031	0 11"
Infinity Pillow Ribbed Black ACC01401051	0 7.5"
Infinity Pillow Plain Black ACC01401061	0 7½"
Y Pillow recess (used for C-751L) ACC01401100	

Cup Holder

Cup Holder

LIT25241-314-800

If you need jet bodies, go to www.quickspaparts.com or refer to the Cal Spa Replacement Parts Catalog, which can be downloaded from www.calspas.com/replacement-parts.

Please visit www.quickspaparts.com to order your replacement parts.

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Appendix

Water Diverter Valves

Diverter Valve 1½" On/Off ASSY (600-4601)
PLU21100045

Diverter Valve 2" Black/Titanium
PLU21300465

Diverter Valve 1" Black/Titanium
PLU21300453

Air Control Valve

Air Control Black/Titanium
PLU21300504

Drains

Drain Super Hi Flo Suction 2½" Black (640-3581LGV)
PLU21400146
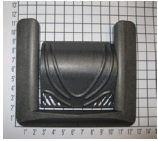
Low Profile Drain ¾" Black (640-0511)
PLU21400401

Weir Skimmers

Weir Skimmer Gate Small Black
PLU21600284

Weir Skimmer Gate Large Black
PLU21600294

Filters

50 sq ft	**FIL11100208** — Filter cartridge antibacterial, Female threaded, PWW50L-M
75 sq ft	**FIL11100209** — Filter cartridge antibacterial, Female threaded, PCAL75-M
	FIL-PCAL77-P4-M — Filter cartridge antibacterial, Female threaded, Teleweir mega skimmer
	FIL-PCAL77-P25-M — Filter cartridge antibacterial

If you need jet bodies, go to www.quickspaparts.com or refer to the Cal Spa Replacement Parts Catalog, which can be downloaded from www.calspas.com/replacement-parts.

Appendix

Teleweir Skimmers

Teleweir filter skimmer 50 sq. ft. (510-4601)

FIL11700006

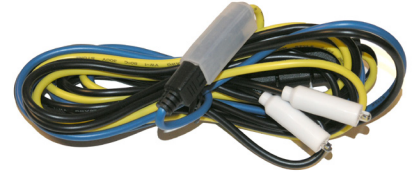**Teleweir mega filter skimmer 75 sq. ft. (510-5671)**

FIL11700015

LED Lights

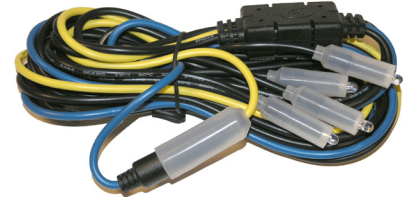**LED mini DCU controller (P1309)**
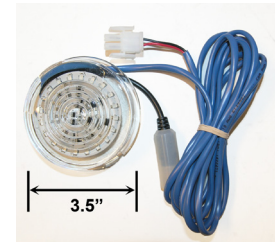
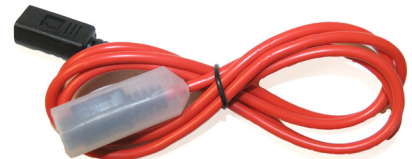LIT16100626

2-LED light string

LIT16100620

4-LED light string

LIT16100621

Interior light with logic

LIT16100625

3.5"

LED light string jumper, 46 inches, daisy chain

ELE09902531

If you need jet bodies, go to www.quickspaparts.com or refer to the Cal Spa Replacement Parts Catalog, which can be downloaded from www.calspas.com/replacement-parts.

Please visit www.quickspaparts.com to order your replacement parts.

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Appendix

Pure Cure™ UV Water Sanitizer

Pure Cure complete system (Wonder PP-1) LIT16000380	
Germicidal UV lamp (T515) LIT16000381	
Rubber O-ring (D24.5) LIT16000384	
Quartz thimble (24.5X350) LIT16000383	
Ballast (UV-3) LIT16000382	
Clips LIT16000385	

Exercise Equipment

Exercise Kit for 7 Foot and 8 Foot Spas EXC12000006	
Exercise Kit for 11 Foot Spas EXC12000005	
Exercise Kit for 12 Foot and 14 Foot Spas EXC12000008	
Exercise Kit for 16 Foot and 17 Foot SpasEXC12000007	
Exercise Kit Attachment Plate EXC11000065	

Replacement Cabinet Panels

The complete selection of replacement cabinets for all models is very extensive and too lengthy for this owner's manual. To order replacement panels for your spa, visit www.quickspaparts.com.

Appendix

Covers

All spa covers are designed with a tapered height, angling downward from the center to the sides to drive off rain and prevent water from pooling. The covers listed below are filled with either 1.5 lb or 2.0 lb foam.

Standard
4" - 2.5"
1.5 Lb. foam

Deluxe
5" - 3"
2.0 Lb. foam

Standard — 4" — 1.5 lb. foam — 2.5"

Deluxe — 5" — 2 lb. foam — 3"

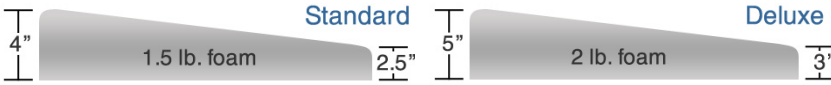|	Gray Standard	Slate Standard
54" x 78" Fits spa models: PZ-517L, PPZ-525L	COV5478S53G-CC	COV5478S53S-WN
64" x 84" Fits spa model: PPZ-537L	COV6484S53G-CC	COV6484S53S-WN
72" x 72" triangle Fits spa models: PZ-617T, PPZ-628T	COV7272TRS53G-CC	COV7272TRS53R-WW
78" x 84" Fits spa models: PZ-621L, PPZ-631L	COV7884S53G-CC	COV7884S53S-WN
78" round Fits spa model: P2511R	COV78RDS53G-CC	COV78RDS53S-WN
87" x 87" Fits spa model: EP-760DL, EC-754DL	COV8787S53G-CC	N/A

	Gray Standard	Gray Deluxe	Slate Standard	Slate Deluxe
93" x 130" Fits spa model: EC-947E	N/A	COV93130D53G-CC	N/A	N/A
84" x 84" (7 foot spas) Fits spa models: P2-722L, P2-722B, PP-732L+, PP-732B+, EC-735L, EC-735B, EC751L, EC751B, EP-761L, EP-761B, PL-760L, PL-760B, PPL7L+	COV8484S53G-CC	COV8484D53G-CC	COV8484S53S-WN	COV8484D53S-WN
93" x 93" (8 foot spas) Fits spa models: EC-835L, EG835B, EC-851L, EC-851B, EC-852L, EC-864L, EC-864B, EP-861L, EP-864B, PL-860L, PL-861B, PL-880L, PL-881B, PPL-8B+	COV9393S53G-CC	COV9393D53G-CC	COV9393D53S-WN	COV9393D53R-WW

Basic Troubleshooting

The troubleshooting guidance provided here is intended to cover the most common problems a spa owner may encounter. For more in-depth troubleshooting, go to www.calspas.com/troubleshooting.

Symptom	Possible Solutions
Problems starting up	
Pump won't prime	See priming instructions on page 15.
Breaker keeps shutting off	Reset the GFCI breaker. If this continues, contact your dealer or a qualified spa technician.
Power and system problems	
System won't start up or breaker keeps shutting off	Power may be shut off. Turn on GFCI circuit breaker. If this continues, contact your dealer or a qualified spa technician.
Control panel doesn't respond	Turn on or reset the GFCI circuit breaker. If this does not solve the problem, contact your dealer or a qualified spa technician.
	If you hear the pump running but the control panel doesn't respond, contact your dealer
Spa does not turn off	Spa may be trying to heat up. Check if spa is in Ready or Rest mode (see page 20 or page 28)
	In cold climates, if spa is not equipped with full foam or any kind of insulation, it will try to maintain the set temperature. Set the spa to low temperature range and set the temperature to 80°F.
	Spa may be in filter cycle. If it is, this is normal and no adjustment is necessary.
Message on the control panel	There may be a problem. See Diagnostic Messages on page 24 or page 30.

**Please visit www.quickspaparts.com
to order your replacement parts.**

Symptom	Possible Solutions
Heat problems	
Spa water does not get hot	Spa may be in low temperature range. Set the spa to high temperature range.
	The filter may be dirty or may need to be replaced. Clean or replace the filter.
	The water level may be too low. Fill the spa with water level at 4 to 6 inches from the top.
	The temperature is not turned up high enough. Raise temperature on topside control.
	Cover the spa. The cover will keep heat in the spa and help keep heat from escaping. Make sure cover is on at all times when spa is not in use.
	The heater element may be old, deteriorated, coated with scale, or defective. Contact your dealer for more assistance.
	The gate valves may be partially or completely closed. NEVER OPERATE YOUR SPA WITH THE GATE VALVES CLOSED!
Spa overheats - temperature greater than 110°F / 43°C	Overheating can occur during summer months and may not necessarily indicate a malfunction. When it occurs, a message code may also appear on the control panel.
	Temperature may be set too high. Turn the set temperature down to a lower temperature.
	Filtration time may be too long. Turn the filtration cycles down during the warm months.
	The spa may not be properly ventilated. Make sure the front of the spa is not blocked to allow air flow.
	High speed pumps may have been running too long. Limit pump running time to no more than 15 to 30 minutes.
Water pressure problems	
Low water pressure	Jet valves may be partially or fully closed. Open the jet valves.
	Filter cartridge may be dirty. Clean or replace the filter.
	Pump may have airlock. Remove airlock by priming spa (page 15)
	The suction fittings may be blocked. Remove any debris that may be blocking them.
	The filter skimmer may be blocked. Remove the blockage.
	Gate valves may be closed. Open gate valves. Note: Never operate your spa with the gate valves closed!
	Spa may be running in filtration mode. Press JETS or JETS 1 button to turn on high speed pump.
No water pressure (no water stream from any jets)	Power may be switched off. Turn the power back on.
	The pump may be defective. After you have tried all other troubleshooting, contact your dealer for assistance.
Jets surge on and off	Water level may be too low. Add water to normal level.

Appendix

Symptom	Possible Solutions
Pump problems	
Pump runs constantly – will not shut off	There may be a problem with circuit board. Contact your dealer.
Noisy pump	The water level may be too low. Fill the spa with water level at 4 to 6 inches from the top.
	Filter cartridge may be dirty. Clean or replace the filter.
	Pump may have airlock. Remove airlock by priming spa (page 15)
	The suction fittings may be blocked. Remove any debris that may be blocking the suction fittings.
	Gate valves may be closed. Open gate valves. Note: Never operate your spa with the gate valves closed!
	Air may be leaking into the suction line. Contact your dealer for assistance.
	Debris may be inside the pump. Contact your dealer for assistance.
	Noise may be a sign of damage. Contact your dealer for service.
Pump turns off during operation	Automatic timer may have completed its cycle. Press JETS or JETS 1 button to start the cycle again.
	Pump may have overheated due to the vents on the equipment door being blocked. Make sure the front of the spa is not blocked to allow air flow.
	The pump motor may be defective. Contact your dealer for assistance.
Pump has a burning smell while running	A burning smell may be a sign of damage. Contact your dealer for service.
Pump does not run	Pump may have over heated. Let it cool for an hour and try operating the spa for a shorter time.
	Power to the spa may be shut off. Turn on or reset the GFCI circuit breaker. If this does not solve the problem, contact your dealer or a qualified spa technician.

Cal Spas
www.calspas.com

Appendix

LIMITED WARRANTY

This Limited Warranty is extended to the original purchaser of a Cal Spa brand portable spa manufactured after January 1, 2016 and installed for residential use outside the United States of America and Canada. This warranty begins on the date of delivery of the spa, but in no event later than one year from the date of manufacture.

This warranty applies only to these spa lines:	Patio, Patio+	Escape, Escape+	Platinum, Platinum+, Swim
Shell Structural Warranted against water loss due to defects in the spa shell.	5 years	7 years	10 years
Shell Finish Warranted against blistering, cracking, or delaminating of the interior surface of the spa shell.	2 years	5 years	7 years
Equipment and Controls Electrical equipment components – specifically limited to the pumps and control system – are warranted against malfunctions due to defects in workmanship or materials.	2 years	3 years	5 years
Plumbing Warranted against leaks due to defects in workmanship or materials.	2 years	3 years	5 years
Cabinet - synthetic, fiberglass, or wicker Warranted against defects in workmanship or materials. Normal wear and weathering of the finish will occur naturally over time and are not defects.	1 year	1 year	5 years

Warranties for Other Components

The fuses, headrests, cabinet finish, and filters are warranted to be free of defects in workmanship and material at the time of delivery. The factory installed water purification system is warranted against malfunction due to defects in workmanship or material for one year from the original date of delivery except the UV bulb and quartz tube, which are warranted for 90 days from the original date of the spa delivery. All stereo-related components (receiver, speakers, sub-woofer, stereo media locker, power supply, wireless remote control etc.) are warranted against malfunction due to defects in workmanship or material for one year from the original date of delivery. All other factory-installed components not mentioned specifically, including, but not limited to the wood frame, jets, diverter valves, LED lighting systems, filter lids, and mechanical components, are warranted against malfunction due to defects in workmanship and material for two years from the original date of delivery. The spa cover delivered with the spa is warranted for one year for Escape, Platinum, and Swim spas, 90 days for Gen II, Patio, and Connect spas.

Genuine Cal Spas Parts & Accessories

This Limited Warranty is void if Cal Spas (the "Manufacturer") or its designated representative determines that the spa has been subjected to damage or failure due to installation of aftermarket parts that are not genuine Cal Spas branded parts and accessories. This disclaimer includes, but is not limited to filters, UV bulbs, ozone systems, salt systems, repair parts and other accessories. Genuine Cal Spas brand parts and accessories are built to our highest standards of quality, durability and performance, and they are designed to work with your spa to ensure optimal performance and function.

Performance

This warranty begins on the date of delivery of the spa, but in no event later than one year from the date of manufacture. To obtain service in the event of a defect covered by this Limited Warranty, notify your Cal Spa dealer or Cal Spas as soon as possible and use all reasonable means to protect the spa from further damage. Upon proof of purchase, a designated service representative will correct the defect subject to the terms and conditions contained in this Limited Warranty. There will be no charge for parts or labor to repair the defect,

although providing access to affect the repair is your responsibility as the spa owner. Freight charges for replacement parts is the responsibility of the spa owner. You may be assessed reasonable repairman travel mileage charges. In the event that the spa is removed to a repair facility for repair and reinstalled, the cost of removal and reinstallation will be your responsibility as the spa owner. If the Manufacturer determines that repair of the covered defect is not feasible, it reserves the right to provide a replacement spa instead, equal in value to the purchase price of the original spa. In such an event, reasonable costs for removal of the original spa, shipping costs from the factory for the replacement spa and delivery and installation of the replacement will be your responsibility as the spa owner. The replacement spa will carry the balance of the original spa's warranty. Spa covers are not included. This warranty ends either by specified time frame, owner-transfer, relocation, or installation of any component other than by manufacturer.

Warranty Limitations

This Limited Warranty is void if Cal Spas or its designated representative determines that the spa has been subjected to alteration, neglect, misuse or abuse, or freight damage caused by the common carrier; any repairs have been attempted by anyone other than a designated representative; or if the failure is caused by accident, acts of God or other causes beyond the control of the Manufacturer. Neglect, misuse and abuse include any installation, operation or maintenance of the spa other than in accordance with the instructions contained in the owner's manual provided with the spa, including but not limited to the failure to maintain proper water chemistry and chemical balance and the use of abrasive or improper cleaners or non-genuine parts and accessories. This Limited Warranty does not provide coverage for any item attached to or installed on the spa after the date of manufacture or for gaining access to any component for repair or replacement. Spa units in commercial use are excluded from any coverage whatsoever. The spa owner accepts liability for repair work performed by anyone other than the Manufacturer or a designated Cal Spa representative.

Limitations

The Manufacturer disclaims all warranties, expressed or implied, in fact or in law, to the extent allowed by your State's Law, including the warranty of merchantability and fitness for use, except as stated specifically herein. All warranty service must be performed by the Manufacturer or its designated representative using authorized Cal Spa parts. No agent, dealer, distributor, service company or other party is authorized to change, modify or extend the terms of this limited warranty in any manner whatsoever. The Manufacturer will not be responsible for any statements or representations made in any form that go beyond, are broader than, or are inconsistent with any authorized literature or specifications furnished by Cal Spas.

Disclaimers

The Manufacturer and its representatives shall not be liable for any injury, loss, cost or other damage, whether incidental or consequential, arising out of any defect covered by this limited warranty, including without limitation, loss of use of the spa and cost for removal of defective product even if the Manufacturer was advised of the possibility of damage. The liability of the Manufacturer under this limited warranty, if any, shall not exceed the original amount paid for the defective product. Coverage under this limited warranty shall commence as of the original date of delivery and the duration of such coverage shall not extend for any reason whatsoever beyond the stated time periods. These disclaimers shall be equally applicable to any service provided by the Manufacturer and its designated representatives.

Legal Rights

This Limited Warranty gives you specific legal rights. You may also have other rights that vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.

Appendix

Locating the product serial number

The serial number of your Cal Spa is located on a metal plate attached to the lower right front panel of the spa. You will need this number to properly register your spa and activate coverage. Write this information in the space provided below.

Cal Spa Model: _____

Cal Spa Serial Number: _____

Date Purchased: _____

Date Installed: _____

Cal Spa Dealer's Phone Number: _____

Cal Spa Dealer's Address: _____

CONTACT INFORMATION

For customer service, please contact your authorized dealer immediately. If you need additional information and/or assistance, please contact:

LMS Customer Service Department
1462 East Ninth Street
Pomona, CA 91766.

Phone: 1-909-623-8781
Fax: 1-909-629-3890

www.calspas.com

Please visit www.quickspaparts.com to order your replacement parts.