

SPA Series

Installation & Operation Instructions



Important Notes:

- Before install and operate the product, please read this manual carefully
This manual includes important product safety information, please keep it.

Warning:

Before installing this product, please be sure to carefully read the user manual. Otherwise, because of that negligence caused the product quality problems, the company assumes no responsibility!

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I. Foreword

1. In order to avoid accidents, ensure that children and no self-care ability people using the company's SPA products under the custody of their guardians.
2. When replacing the water pump and its related accessories, and the original specifications should be consistent, and let the professional personnel to replace, prohibit the unauthorized disassembly to avoid the risk of accidents and dangerous that brings.
3. To avoid the risk of electric shock, SPA shall not be placed within 1.5 meters around the range of other metal parts or appliances, unless the metal parts or appliances has been used is not less than 10MM² grounding conductor cross-section.
4. Around SPA 1.5 meters shall not be set within the range of other appliances (such as the telephone, lamp, network cable)etc., so as not to interfere with other electrical leakage or was caused by lightning lead to the damage of SPA or cause danger.
5. SPA-metal stents must be well grounded, ground section no less than 10MM² (8AWG).
6. Before entering the SPA, the water temperature should be tested for suitability of use, SPA's temperature should not exceeding 42℃, it will cause the system unable to work, and long-term over-temperature will lead to cylinder damage. Water temperature should be properly adjusted to 25℃-40℃, this temperature range will be no harm to human body.
7. Long-time soak in hot water will cause hyperthermia, such as heating without notice cause burns, body weakness no ability to leave SPA, or cause Loss of consciousness leads to drowning. Please do not soak in water too long, and be alert for symptoms of hyperthermia produced, it would be better to have other normal ability people as the monitoring at the side.
8. Before using the product, alcoholic beverages or medication is banned, those actions may cause physical discomfort arising from accidents.
9. Obesity, pregnant women, heart disease, high / low blood pressure, diabetes, and other diseases, please consult your doctor whether you are appropriate to use this product.
10. Taking medications containing ingredients sleepy, especially tranquilizers, antihistamines drugs, and anti- blood clots medicine, people who taking these medicines shall not use this product.
11. Before using the SPA should be bathed, in order to reduce the possibility of disease transmission. People who have skin disease or infectious disease should follow doctor's recommendation to use this product.
12. Regularly test water quality, please clean up or replace water when the water quality is not up to the standard or contain harmful ingredients produced to the human body.
13. Children should not play in the vicinity of the SPA without a guardian of the case, not to climb the SPA cylinder side and enter the inside cylinder.
14. Non-professionals is prohibited to disassemble or repair this product.

Exemption Clause

Violates the above provisions or not in accordance with the requirements of the specification of the appearance of the product problems and caused the accident, manufacturers do not bear any responsibility.

Statement

To protect your rights, please fill out the product warranty card carefully, and your purchase with the original bill together properly preserved. The Company reserves the right to modify the product, subject to change without notice.

II. Installation Guidance

Thank you for choosing our SPA products, the company's products will bring you and your family more health and enjoyment.

Before buying the company's SPA products, you must have planned the site location, but in order to install and use the product better, the professional installer you hired must be aware of the following points

1. Before installing the product, make sure the installation personnel qualified to install the product, must be professionally qualified persons.
2. In accordance with the water, electrical safety code for installation requirements of hydropower, and to comply with local statutory requirements.
3. Ensure product is installed in a well-ventilated, smooth drainage place.
4. SPA power must be connected in series with leakage protection, and leakage protection specifications in line with SPA's electricity requirements. Before using the product, detect leakage protection device needs to be checked for its properly working, every month to restart detect leakage protection once, restarted leakage protection intervals not less than 30 seconds. In cold wet environment, an appropriate increase must take in the detection.
5. To ensure the supply of the products of hot water temperature is not more than 42℃.
6. When the product is faulty, please notify your local dealer or service center products.
7. Install the product you need the following tools:



Level Instrument

Teflon Tape

Wrench

Screwdriver

Cable

Electrical Tape

8. Choose where to install SPA, whether to install indoor or outdoor location selected must be solid structure, the surface must be horizontal, $\pm$ gap is not more than 5MM, precast cement surface better, requires good drainage. And must be ventilated to keep the environment dry, protect safety and service life of electrical components, humid environment will lead to accelerated aging of the electronic control system, damage, this result it is not within the terms of the warranty.

9. After the SPA is installed will result in weight multiplied, please fully accounting product weight + water capacity quality + body weight for accounting of the need to bear the weight of the installation position is reached, and the bearing weight must be reserved 30% of the total weight (the total weight and water capacity of SPA, please ask your supplier)

10. SPA tub can not be installed on land, sand, soft turf surface, incorrect installation can cause weight gaining when using SPA cause structural damage to the cylinder, the situation is not within the terms of the warranty.

11. SPA is installed nearby floor must be non-slip material, because the use of massage cylinder may have spilled water on the floor, the key to preventing stagnant water around the massage cylinder is properly installed drainage system.

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12. Laying electrical line interface, the interface switches and junction box must be set in accordance with international IEC safety standards or the location of the country safety standards.

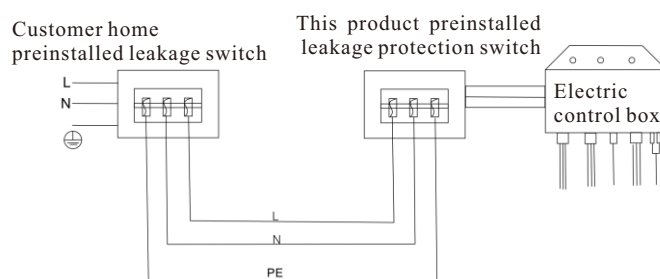
13. Electric power line cross-sectional area of the interface must meet SPA model you have installed power requirements, and the need to set aside 30% extra, (for SPA model power you are installing, please consult your supplier) power line's breakdown voltage is 500V copper cable.

14. The rated current of the power switch must meet the current requirements for the SPA, and requires a separate set of electrical appliances, and other electric appliances can't be shared.

15. Power switch / junction box must be firmly grounded to prevent electric shock.

16. Circuit installation of SPA, you must install leakage protection switch, and the installation position must take waterproof and damp proof measures.

Must be installed by the relevant departments recognized professional installation, ensure compliance with safety standards of international IEC or the local countries



Two-phase power line wiring demonstration

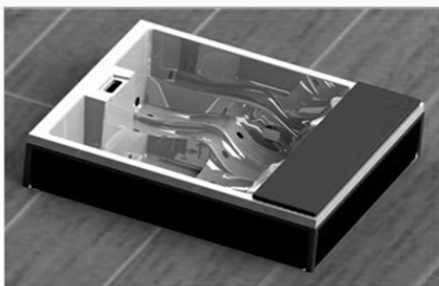
regular installation structure

According to the topography requirements usually has the following 3 kinds of installation way

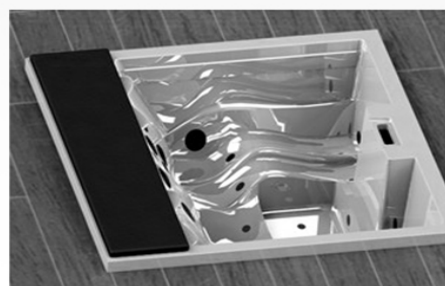
Flat Installation



Semi-embedded Installation



Full -embedded Installation



III. Installation Steps

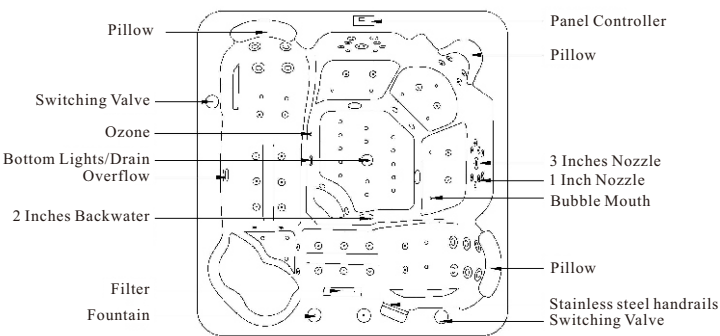
1. Platform installed in the layout planning position (horizontal), platform based on the model you choose a layout into drains, (installation location of the year will be below zero degrees Celsius temperature must use PPR pipe or plastic pipe)
2. Arrange the appropriate power line, and install leakage protection switch (power supply voltage, current, phase number must comply with the model you choose)
3. Install the SPA bathtub into planning location, you can choose to install the way to lift, hang. But please pay attention to the installation should handle with care, not by the strong impact force, SPA cylinder surface can't be directly in contact with the ground.
4. After installation in place to connect the drains, (drains' position must be lower than the outlet of the cylinder) and then connect the water pipes. (In the pipeline construction site, check whether there is sand and other debris, debris water is prohibited into the SPA, will lead to component damage)
5. Connecting power line after detecting water pipe connected correctly, make sure the power supply voltage and terminal connection, you must install the grounding. The control system is very sensitive to voltage, connection error causes the control system burned, this does not in the warranty scope,(wiring details please ask your supplier)
6. Make sure hydropower installed no problem, water can drain into the SPA, turn on the power debugging
7. After installing the filter element inside the filter or the quartz sand inside the sand cylinder within normal use(all steps to complete the installation)

The installation position can't directly exposure to the sun, would greatly cause cylinder and fittings aging

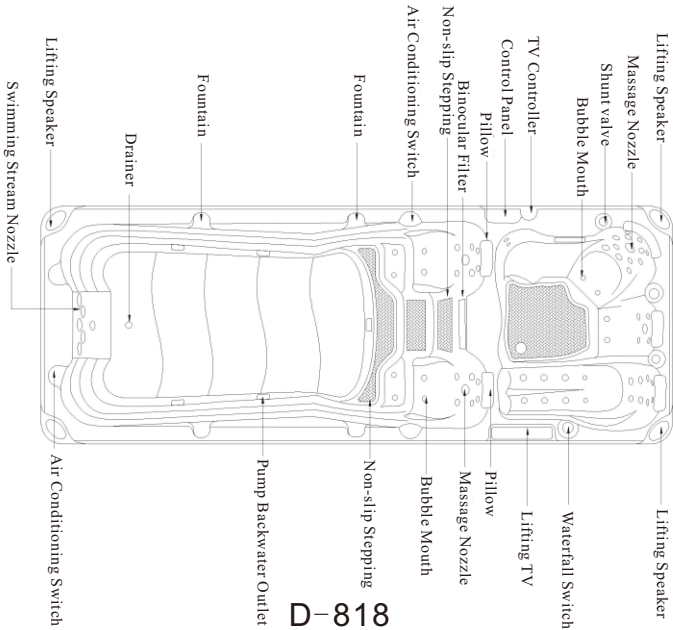
IV. Product Function

1. Product structure configuration diagram

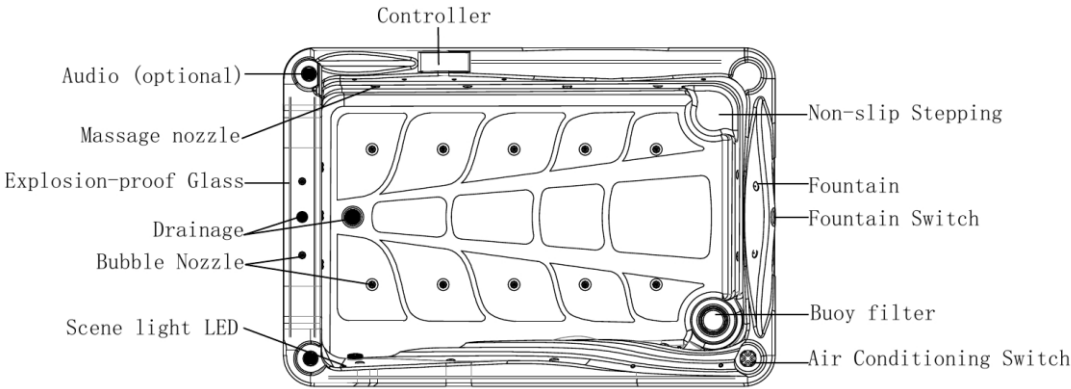
(List only the representative products, your ordered products please prevail in kind configuration)



D-802



D-818



DC-1406

V. Control Instruction

1. The following is the description of the company's four sets of control systems, please refer to the corresponding operation of your SPA installation of control system model. (Control system's setting directly affect your use, please read carefully)

Control System (I)

[Tp800 Series Control Panel](#)

Balboa Water Group Colossus Series
User Interface and Reference Program

System Model: BP2500/2800
Software Version: 5.0 and later
Panel Model: TP800 Series
Software Version: 2.0 or later 1.9 or later



Main Display

Spa Status

Important information about spa operations can be found on the main display.

The most important functions, including temperature setting and control can be set via the main display.

The actual temperature display is large font, you can select or adjust the predetermined temperature.

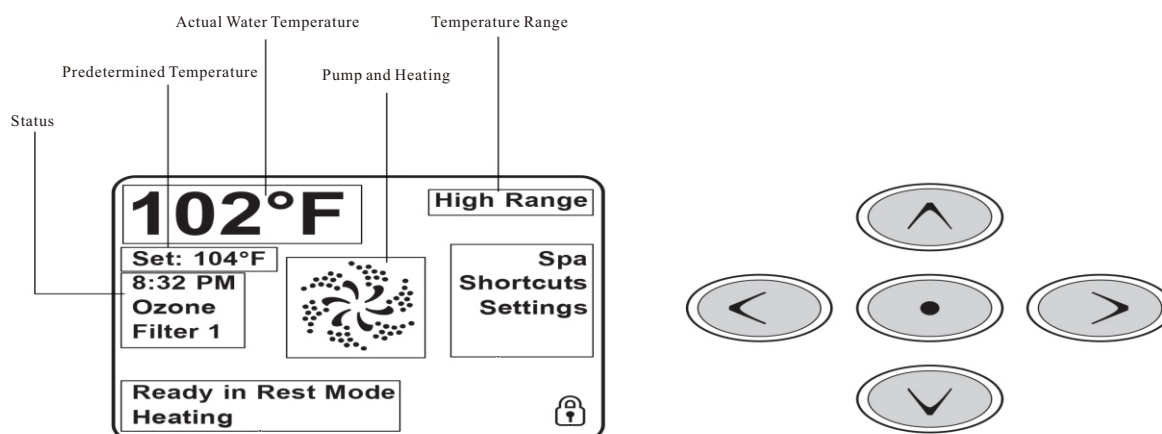
Time-of-day, ozone operation, filter operation status and other information on the notices can be enabled.

High Temperature Range VS Low Temperature Range displayed in the upper right corner.

If any pump in TP900 at work, in the middle of the swirl logo will rotate. When the heater is turned on, the color will change. (TP800 swirl logo does not rotate, but still shows a pump and heater function.)

When the panel and set are locked, we will see lock signs.

When the right side of the menu is selected, the screen will display more settings and program functions.



Main Display

Navigation

5 buttons to the menu navigation on the control panel to control

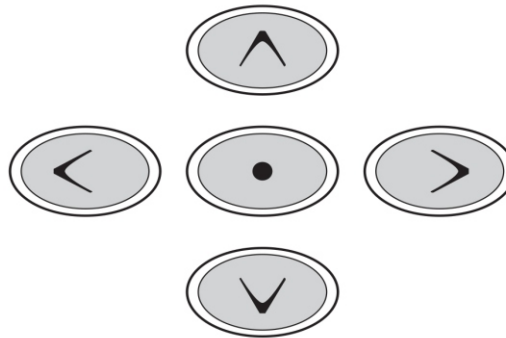
During navigation, when a part turns white, it means that this section has been selected.

Through the center button or the "Select" key to operate or change the selected column

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Left of the main display can be changed only in the temperature setting section. Press the left arrow button to set the temperature figures to white, then the temperature set by upper and lower keys to adjust. Press the select key or the right arrow button will save the new predetermined temperature.

In the right side of the main screen, select the menu using the upper and lower keys. Select a column with the select key, another screen and some additional control option will appear after selecting.



Information Tips

In the bottom of the display, message alert will appear from time to time, some information must require the user to delete. (See page 17)

Press-and-Hold

When setting temperature, press up button or down button, the temperature will change continuously until stop pressing the button or the temperature reaches the limit.

Spa Screen and Shortcut Screen

All equipment connected

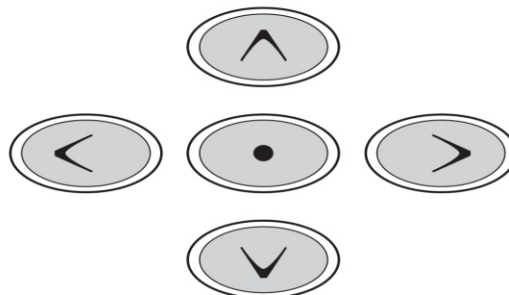
Spa screen display all operating equipment and other features, such as rapid conversion to the navigation screen. Screen icon associated with the installation in a specific Spa type of equipment, so the screen will change according to different installation.

Navigation keys are used to select single device, the selected device will appear as a white outline, font under the icon will become white too. When the device is selected, with the middle selection button controls. For some devices, like pumps, perhaps there is an excess of "ON" state, the icon will be back to the state at the time of equipment. Following examples are indicative of a two-speed pump.



If Spa has circulation pump, the circulation pump icon will display its state of motion. But if not in priming mode, the circulation pump can't be controlled directly.

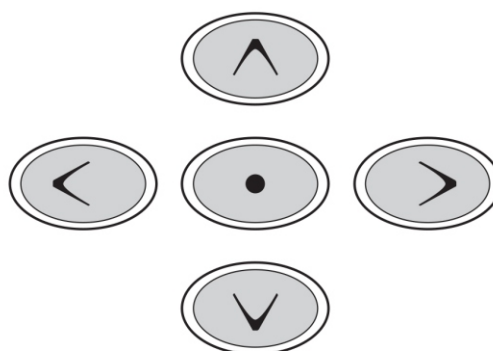
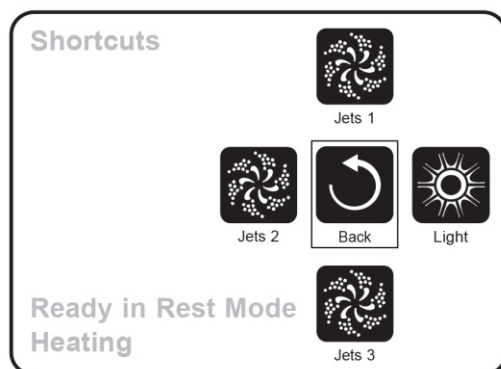
Note: There is a heater pump icon will appear red spot in the middle of the heater is running.



One key to Activate

Shortcut Screen without navigation. Each button represents a specific function, a very simple user interface, easy to use. Each button function according to the instructions of the factory settings are displayed on the screen.

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Set Screen

Pressing a "Button"

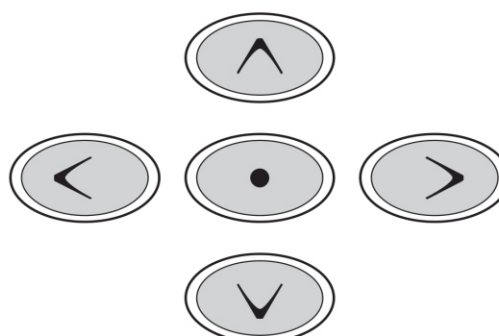
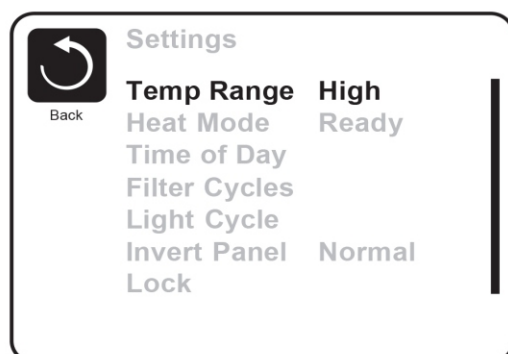
When the indicator shows "press a button", any of the following can be completed. Expectations in any screen orientation columns, when the desired part is selected, press the Select key. If one of four functions in this device is available, in the Shortcut screen corresponding button of this device.

Programming, Etc.

Settings screen is where all the programming and other Spa functions are controlled. This screen has a number of features that can be directly manipulated. These features include temperature range, heating mode and conversion interface, when one of them is selected by the select button is used to convert between the two settings. Other menu items (arrow pointing to the right) will be another level in this menu

Press-and-Hold

When an item is selected in the menu, hold down the up or down button on the menu page will quickly slip from the top to the end. The pulley of the right side of the screen displays the corresponding position of the selected column.



Dual Temperature Range(High vs. Low)

This system combines a dual-temperature settings and independent temperature settings, the specific temperature range can be selected in the Settings screen, it will be displayed in the upper right corner of the main screen.

This range can be used for a variety of situations. As common as a "ready to use" setting vs a "vacation" setting. Each range controls corresponding temperature set by the user. That is, when a range is selected, Spa will be heated to a set temperature within this range.

High range may be set from 80 to 104 .

Low range may be set from 50 to 99 .

More specific temperature range may be determined by the factory

Freeze protection can be enabled at any range

Set Screen-Continue

Heating Mode - Ready vs. Rest

There is a pump need water cycle in a heater makes Spa heating. This is called heat pump.

Heat pump can be two-speed pump(pump 1)or circulating pump.

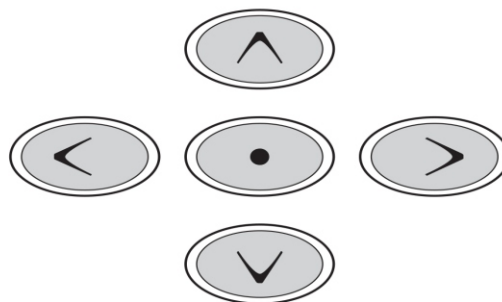
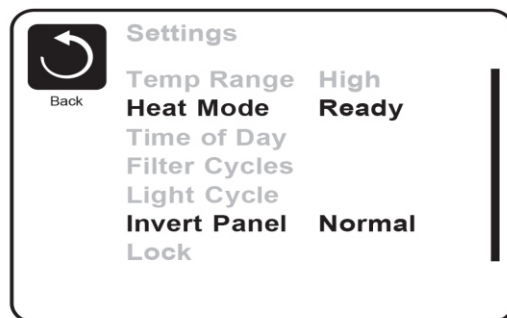
If the heat pump is a two-speed pump 1, READY mode will cycle water once every half hour. Using a pump 1Low to maintain a constant temperature, and update the temperature will display. This is the "polling"REST mode only allows the filtering process in preparing heat circulation. Because it would not appear the polling, the heat pump is running 1-2 minutes will show the current temperature.

Pump 1High can be turned on or off, pump 1Low will run until it reaches the set temperature, or more than one hour.

Circulation mode (see other circulation mode on page 8).

If Spa is set to 24-hour cycle, the heat pump will run. Since the heat pump in continuous operation, Spa will maintain the set temperature and the heat in demand under the READY mode, no Polling.

In Rest mode, Spa will only be heated to the set temperature within the filter time, even if water under circulation mode has been filtered.



Ready-in-Rest Mode

When in Rest mode, press the Jets 1 button, READY/REST will be displayed on the screen, assuming Spa is being used and will be heated to a predetermined temperature. Pump 1High can be turned on or off, pump 1Low will run until it reaches the set temperature, or more than one hour. After 1 hour, the system will turn to Rest mode. This mode can also be reset by entering the Settings menu and change the heating mode.

Fill it up!

Preparation and Filling

Spa will be set to the correct operational phase. Before filling, be sure to open all valves and jets in Plumbing systems, as well as in filling process, enough air flowing out Plumbing and control systems.

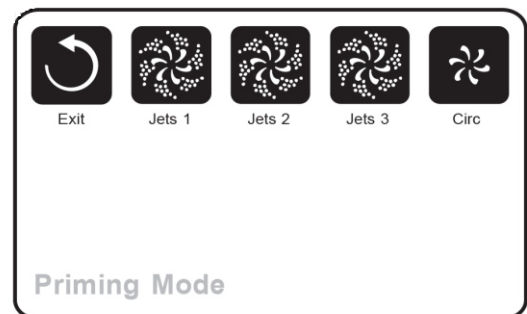
Priming Mode - M019*

After the initial start-up phase, the control will go into Priming mode, Priming mode screen will be presented.

Only pump icon in priming mode is displayed on the screen. Priming mode ends when the system automatically return to normal heating and filtering, this will continue for 4-5 minutes. In the priming mode process, if the heater can't be charged in the case of low-flow or no-flow, and will not be able to complete the priming process. Although it can't automatically empower, but the pump can select "Jet" button to recharge. If Spa has circulation pump, in priming process can press "Circ Pump" button to control the ON or OFF. In addition, if there is a circulation pump in Spa, at The Priming mode in TP800 press specific "Light" button to make it start. Press the "Exit" button to exit Priming mode.

Priming the Pumps

When Priming mode screen appears on the panel, select "Jet 1" button to open a low-speed pump1, then into high speed. Select another pump to open. These pumps should be operated in high speed mode to optimize Priming. If the pump has not been Prime after two minutes, water can't flow into the Spa, do not let the pump continue to run. Turn off the pump and repeat the original process. Note: Turn off the power and then turn it on again will start a new pump priming process. Sometimes, from time to time turn off and then turn on the pump will help its prime. But do not exceed 5 times. If the pump still not prime, please turn off the power, contact customer service.



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Important: Any pump should not run more than two minutes without priming, never in the case of absence of priming, run after 4-5 minutes in priming mode. The above approach may result in damage to the pump, so that the system is in overheating stage.

Exit Priming Mode

You can in the Priming mode screen by navigating to "Back" button to manually exit Priming mode. If you do not have to manually exit the priming mode as described above, priming mode will automatically interrupted after 4-5 minutes. Make sure the pump has been prime in this process.

Once the system exit Priming mode, the main screen will be displayed on the up panel, but it does not show the temperature, as shown below. Because the system takes about 1 minute to allow water to flow into the heater to determine the temperature, and then displayed.

-- °F -- °C

Spa Behavior

Pump

On the Spa screen, select the "Jets" button to control its turn on or off, and then convert between the low speed and high speed (if equipped).

If out of running, the pump will turn off after a timeout. Low-speed pump 1 will time out after 30 minutes. High-speed pump will time out after 15 minutes.

In non-circulating system, low-speed pump 1 will run when the wind pump and other pumps are turned on. If Spa in Ready mode (see page 6), low speed pump 1 can still be in every 30 minutes for 1 minutes start to detect the temperature of Spa polling) and then heated to a predetermined temperature. When the low-speed pump converted to automatic, it can't be closed from the panel, but the high-speed pump can be opened.

Circulation Pump Mode

If the system is equipped with a circulation pump, it is set into the following one of three kinds

1. Circulation pump runs continuously (24 hours), except when the water temperature exceeds the set temperature 3 (1.5 °F), close it for 30 minutes or more once. (In each peak period occurred mostly)
2. Circulation pump continued to stay, no matter how much water temperature is
3. When the system is in filtration cycle, refrigerated environment and other pumps opened to detect temperature (polling), the programming of a circulation pump will open. Specific circulation mode will be set by the manufacturers, can't be changed. Other equipment such as wind pumps, lights, sprayers, etc. will be used.

Filtration and Ozone

In the non-circulating system, low speed pump 1 and ozone generator run during filtration. In circulation system, ozone and circulation pump run together, but may be limited to filtration cycles.

System at the factory has been set up a filter cycle, which will be run when energy is low in the evening (assuming time-of-day setting correctly). Filter time and duration time can be set. (See page 10)

At the beginning of each filter cycle, the water equipment, like wind pump, spray pump or other pump will be simply purify plumbing to maintain the quality of water.

Freeze Protection

If the heater with a temperature sensor to detect temperature, the water device will automatically turn on the freeze protection.

In cold environments, an optional additional freeze sensor may open protection, prevent basic sensor failed to immediate induction. Auxiliary freeze sensor protection is similar, except switch can determine temperature points. To know more, please contact your local operator.

Cleaning Cycle(Optional)

When the pump or wind pump turned on by the button, A 30-minute cleaning cycle will open when it closed or overtime. Pump and ozone generator will run 30 minutes or longer, depending on system condition. In some other systems, you can change the settings. (See page 14 Preference section)

Time-of-Day

Be sure to set Time-of-Day

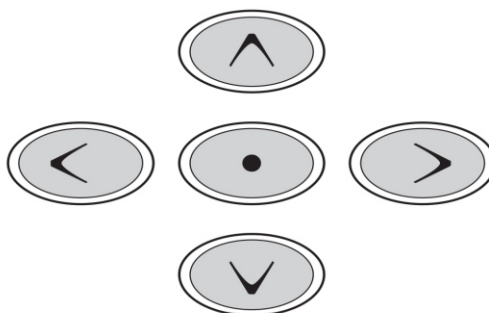
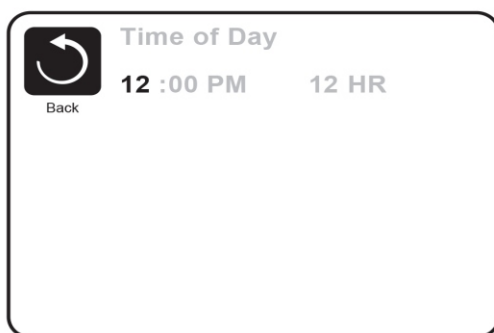
It's important to set "time-of-day" to decide filtration time and other back-office functions.

If the "time-of-day" is not set in memory, "Set time" will display.

In the settings screen, select Time-of-day. In the Time-of-day display, a simple guide to select the right or left of the hour, minute, AM / PM and 12/24 hour clock.

Using the arrow keys to adjust.

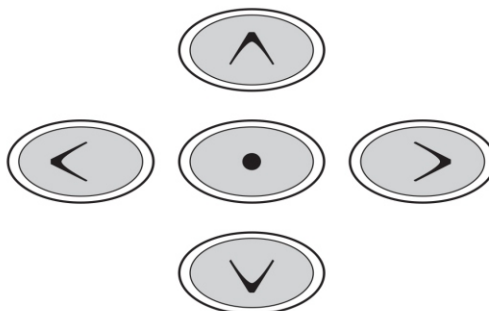
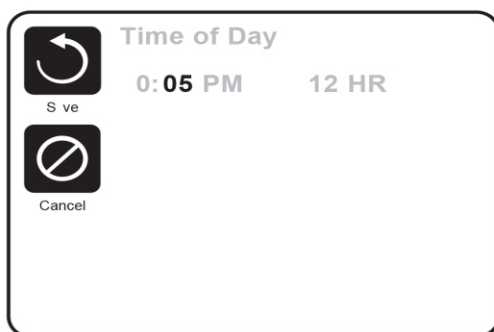
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Save Settings

Time-of-day screen is a simple editable screen, which shows the control functions can also be applied to other subjects editing screen.

When change occurs, "Back" icon will become "Save" icon, a new icon "Cancel" will appear below in the "Save" icon. Oriented to the left will select the Save icon, oriented to the below allows the user to cancel the change. Press "Select" button will save or cancel changes to return to the previous screen.



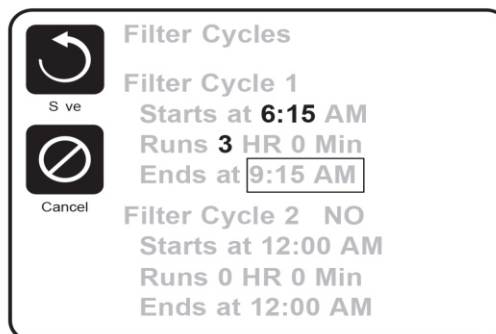
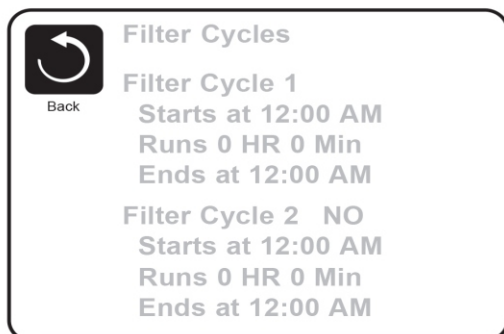
Notes:

If the system is powered down, Time-of-day will save for a few days.

Adjust Filter

Main Filter

Using a similar set time navigation, using start time and duration time to set filter cycle. Each setting can be adjusted after 15 minutes. Panel will calculate the end time, then automatically displayed.



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Filter Cycle 2 - Optional Cycle

Filter cycle 2 default as close.

Simple guide to filtration cycle 2, press the right navigation key, when "NO" is selected on, press the up and down keys to control the filtration cycle 2's on and off. When the filter cycle 2 is ON, using the method of adjusting filtration cycle 1 to adjust filtration cycle 2.

Overlapping filter cycle 1 and filter cycle 2 is allowed, but will reduce the total amount of filtering.

Pump Cycle Mode

Some Spa may be associated with circulating pump disposed in the production, are allowed the preparation of the filtration cycle duration. Some cycle mode has been preset to 24 hours to run, it can't be modified. Please refer to the Spa Factory file for more details circulation patterns.

Purification Cycle

In order to maintain a clean environment to prevent freezing, auxiliary water equipment will simply conduct a purification on each filter cycle begins in relative Plumbing.

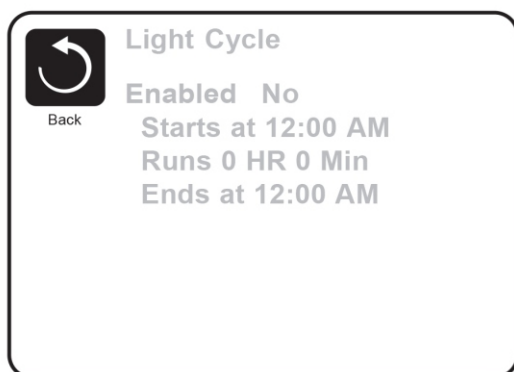
If the filter cycle 1 is set to a period of 24 hours, the filter cycle 2 is started at the beginning of a purification.

Other Settings

Light Cycle Options

If the light cycle does not appear in the settings menu, the light time function is not enabled by the factory. If applicable, the light time default setting is OFF.

Set methods are the same as how to set up the filtration cycle. (See page 10)



Reverse Panel

Select reverse panel will reverse the display and buttons, making it easier to operate from inside or outside.

Specific buttons

Specific Device's Specific buttons

If the panel has a specific function buttons (TP800), or Spa installed auxiliary panel, press these buttons will activate the corresponding device.

These specific buttons' running like Spa screen buttons (see page 4), after pressing, the corresponding device functions will run.

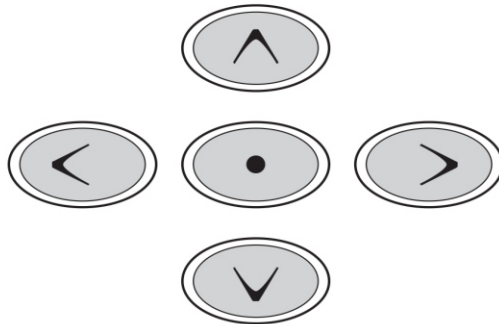
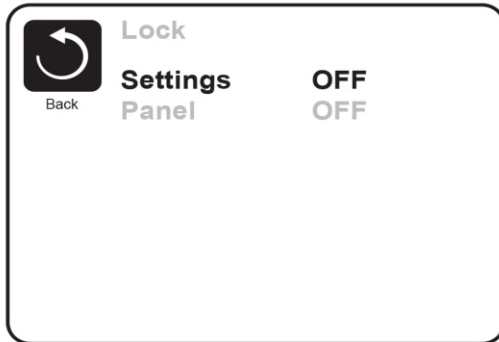
Limit Operation

Through limit operation to prevent unwanted application or temperature regulation.

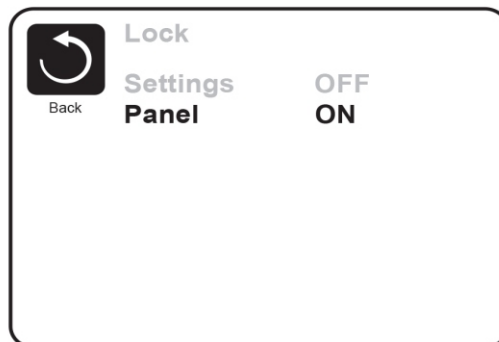
Lock the panel prevents operation, but all automatic functions are still valid.

Lock setting allows Jets and other functions to be used, but the temperature settings and other programmed settings can't be adjusted.

Lock settings can reduce the project in menu, including temperature setting, reverse, lock, function, information and error logging. You can query, but you can't edit and change.



Unlock



Unlock function can be achieved by using the navigation keys in locked screen. Unlock function applies both to unlock the panel also applies to setting unlocked.



Other Settings

Hold Mode - M037*

Hold mode can be used during service functions, such as cleaning or replacing the filter, pump is banned. Hold mode will last one hour unless they are manually exit. If you need more than one hour Spa services, turn off the power.

Drainage Mode

Some Spa has a special feature that allows the pump 1 to be used when drain. If available, this feature is part of the Hold mode.

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Utilities

Utilities menu including the following:

A/B Temps

When this is set to ON, the temperature display will change from the heater sensor A to heater sensor B's temperature.

Demo Mode

Demo mode is not always open. The purpose of this operation is in order to show some of the different device functions.

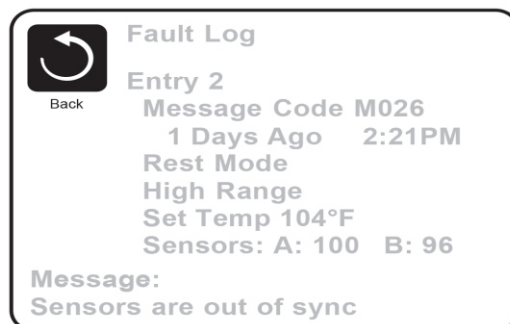
Error Log

Error log records the last 24 errors, service personnel can check the record.

GFCI Test

(This function can't be used in CE System)

GFCI test is not often used. This screen allows the panel manual test and reset automatic test function. If the GFCI test function is reset, the device will Trip 7 days (see page 16).



Other Settings

Preferences

Preferences menu allows users to change certain parameters based on personal preferences.

Temp Display

Changes in Celsius or Fahrenheit.

Time Display

Changing the time is displayed as 12 hours or 24 hours.

Reminders

Open or close alert message (like "clean filter").

Cleanup

Cleaning cycle duration is not always open. When turned on, set the running time of pump 1, 0-4 hours is available.

Dolphin II and Dolphin III(Only for RF Dolphin)

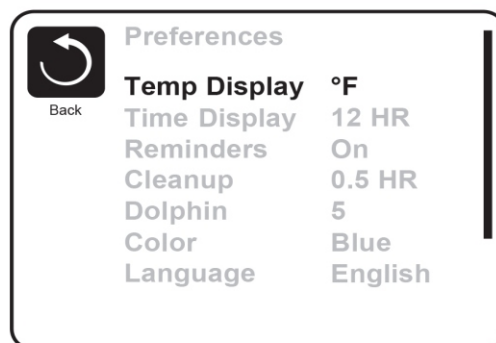
When set to 0. No address is used. Use this setting to the factory default is no address in the Dolphin II or Dolphin III. If set from 1 to 7, the address is a number. (See Dolphin menu to view details)

Color

When Color is selected, press the select button, a variety of background colors will be in control cycle.

Language

Changing displays language.



Information

System Information

System Information menu displays a different setting and a special system, for each selected project, specific information is displayed below the screen.

Software ID (SSID)

Display system software ID.

System Model

Display system model.

Current Setup

Display the current setting number.

Configuration Signature

Display system configuration check.

Heat Voltage (Feature is not available for CE System)

Display heater operating voltage.

Heater Wattage as Configured in Software (Only for CE System)

Display settings in control system software level in the heater. (1-3 or 3-6)

Heater Type

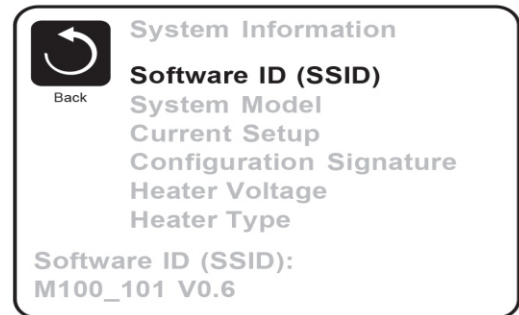
Display heater category ID.

Dip Switch Settings

Display in the main circuit board shows S1 location's Dip switch digital.

Panel Version

Display the top of the control panel software numbers.



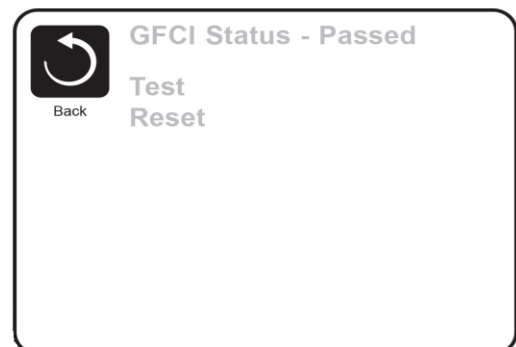
Utilities - GFCI Test Function

Ground Fault Circuit Interrupter (GFCI) or Residual Current Detector. Detector (RCD) is a very important safety equipment, you must install the equipment.

(GFCI Test Function is not suit for CE System) For detecting correct installation

Perhaps your Spa is equipped with GFCI protection. If your Spa at the factory to open this feature, you must use the GFCI Trip Spa test to ensure proper Spa function.

In the first week after the initial operation, Spa will be performed GFCI test (specific number of days for the factory setting)GFCI must be reset after the execution. Once through the GFCI Trip Test, any subsequent GFCI Trip will indicate Ground Fault or other unsafe factors. Therefore Spa must be close, until service personnel to solve the problem.



Basic Information

Most of the information appears at the bottom of the screen prompt frequently used. Some information prompt will appear in order. Some information can be reset in the panel. Information can be reset will be at the end in the information display appears the right arrow. This information may choose to select.

Clean the filter

-- °F -- °C

Water temperature is unknown

Pump runs after 1 minute, the temperature can be displayed.

Possible Freezing Environment

Frozen environment may be detected, or Aux Freeze switch is off. All the water devices are turned on. In some cases, the pump can turn on or off in freeze protection, the heater can also be run. This is an optional information, not the error hints.

The water temperature is too high - M029

If the system detects Spa water temperature is higher than 110 ° F (43.4 ° C). Spa feature will be turned off. When the water temperature is below 108°F (42.2 ° C), the system will automatically reset. Please check informed extended pump operation and the surrounding high temperature

Heater Information

The water is too low - M016

If the amount of water flowing into the heater is insufficient to carry the heat will affect. Heater will start again after 1 minute. See "Water Detection".

Flow Error*- M017

If insufficient water flows into the heater, the heat will affect the result of the heater to turn off. See "Water detection." If this problem is solved, it is necessary to reset and then press any key to start the heater.

Heater is too dry*- M028

Caused by heater too dry or insufficient water. Spa will be closed for 15 minutes. Press any key to reset the heater, see "water detection."

Heater is dry*- M027

Caused by inadequate water, Spa will be closed. If this problem is solved, it is necessary to reset and then press any key to start the heater. See "Water detection."

Heater is too hot*- M030

If a heater's water sensor detects the water temperature reaches 118 ° F (47.8 ° C), Spa will be closed. When the water temperature is below 108 ° F (42.2 ° C) need to clear this message. See "Water Detection".

Water Detection

Detect low water level, flow restriction, close valve, air control, many closed Jets and pump prime. In some systems, even if the Spa was closed due to some error, some other devices may still be open to constantly monitor the temperature, or detect the need for freeze protection.

Sensor Information

Sensor Error - M015

Temperature sensor appears 2 ° F to 3 ° F error. Contact customer service.

Sensor Error -- Contact customer service*- M026

Temperature sensor generates an error occurs at least one hour. Please contact customer service.

Sensor A Error, Sensor B Error-Sensor A: M031, Sensor B: M032

A temperature sensor or sensor wiring error, contact customer service.

Other Information

Exchange Information Error

Control panel not receives information send by system, contact customer service.

Test Software Installation

Control system run the test software installation, contact customer service.

°F or **changed into T**

Control system as test mode, contact customer service.

System Information

Program Memory Error*- M022

When power is turned on, the system does not pass the calibration test. Surface firmware error (operating procedure), need to contact customer service.

Settings are reset(Permanent Memory Error)*-M021

If this message appears more than once when turn on the power, please contact the dealer or customer service.

Clock Error*-M020

Please contact the dealer or customer service.

Configuration Error(Spa unable to open)

Please contact the dealer or customer service.

GFCI Test Failed(System can't conduct GFCI Test) - M036

(North America only)May indicate an unsafe installation. Please contact the dealer or customer service.

Pump is stuck - M034.

Water temperature is too hot. Turn off Spa, not fill up water. Please contact the dealer or customer service.

Thermal Error - M035

When Spa last time energized, the pump is stuck.

Turn off Spa, not fill up water. Please contact the dealer or customer service.

Prompt Information

Basic Maintenance Help.

Prompt information can be banned in Preference Menu.

Each prompt information can be selected to use by the vendor. May all be disabled, there may be a certain number of messages appear on a particular model. Frequencies for each message (7 days) is determined by the manufacturer.

Check pH

Check once every seven days.

Use professional test kit to detect PH, using the appropriate chemicals to adjust PH.

Detection Disinfectants

Detect once every seven days.

Use professional testing kit to detect the level disinfectants and other chemicals, and use appropriate chemical to adjust.

Clean the Filter

Clean once every seven days.

Clean the filter according to the manufacturer's instructions.

Test GFCI (or RCD)

Test once every 30 days.

GFCI or RCD is very important safety device, it is necessary to check the stability of fixed test.

Each user needs to be trained in how to properly test the GFCI or RCD in installation.

GFCI or RCD has a test and reset button, the user can detect its function.

Change Water

Change once every 90 days.

Fixed to replace the water in Spa will maintain the proper chemical balance and a cleaner environment.

Clean cover

Change once every 180 days.

Vinyl covers should be cleaned so that it has the largest life.

Clean Wood

Use once every 180 days.

Should be in accordance with the manufacturer's instructions to clean wood surfaces, so that it has the largest life.

Replace the Filter

Replace once every 365 days.

Filters should be replaced occasionally to maintain Spa features and a clean environment.

Message can be reset in the top panel.

Other information will appear in a specific system.

Warning! GFCI or RCD Protection.

Users should test and reset GFCI or RCD to detect its function regularly.

Warning! Electric Shock Risk!

No User Serviceable Parts.

Do not try to maintain operating systems by yourself, contact the dealer or customer service for help.

Please refer to the user manual power connection instructions. Must be installed by a certified electrician, and ensure that all grounding connections are properly installed.

SPA Series

Control System (II)

VI801D Series Control Panel

**Balboa Water Group Colossus Series
User Interface and Program Reference**



Initial Start

After charged, Spa will go into Priming Mode (Pr) (start mode). In Priming Mode (start mode), repeatedly press "Jets" button, and make sure all the air inside the pump have been drained. Priming Mode (start mode) will last less than five minutes. Press "Warm" or "Cool" to exit. After Priming Mode (boot mode) end, spa will have Standard Mode (standard mode) to operate (see "Modes" section).

Pumps for heating and filtration (pump 1 use low speed running or circulation pump) referred to as the pump. Combination keys on the operation, if the order is too fast to operate, the operation may be invalid.

Temperature Control (80F-140F/26.0C-40.0C)

Only after heating pump run for at least two minutes, will show the current water temperature.

To display the set temperature, you can click "Warm" or "Cool".

To change the set temperature, pressing the temperature button again before the display stopped flashing. Three seconds later, the display will stop flashing, a Will continuous showing the recent measured water temperature.

nd then began to display the current spa temperature.

Jets 1

Press "Jets 1" to enable or disable pump 1, and use this key to switch high-speed and low-speed (if pump 1 is a two-speed pump). Low-speed pump will turn off after 4 hours running. High-speed pump will shut down after running for 15 minutes. Low-speed pump may not run on their own from time to time, you can't cancel the operation during this period from the panel, but can operate on high-speed pump.

Jets 2/Jets 3/Blower(If installed)

Click the corresponding button to start or disable the device. The device will turn off after 15 minutes. Pump 2 on some systems may be dual speed.

Light

Press the "Light" to run spa lights. If you do not press again, spa lights will automatically turn off after 4 hours.

Set Time

When the spa is first powered up, the "SET TIME" flashing indicator appears on the control panel. Click the "Time", then press the "Mode / Prog", then press "Warm" or "Cool". Set the time will increase or decrease in 1 minute, when you press "Warm" or "Cool", press the "Time" to confirm the set time.

Mode/Prog

Change the mode by pressing the "Warm" or "Cool" then press the "Mode".

Standard Mode - Maintaining the temperature at the set temperature. STANDARD image displayed on the panel.

Economy Mode - Only in filtration cycle will the spa water temperature be heated to a set temperature. When the water temperature is not the set temperature, Eco images will be displayed on the panel. When the heat pump is in operation, Ecn image and water temperature will alternatively display. ECONOMY icon will be displayed on the panel.

Sleep Mode - Only in filtration cycle will the spa water temperature be heated lower than the setting of 20F/10C. When the water temperature is not the set temperature, SLP icon will be displayed on the panel. When the heat pump is in operation, SLP icon and water temperature will alternatively display.

Preset Filter Cycle

The first preset filter cycle will start when the spa is energized after 6 minutes. The second preset filter cycle will start after 12 hours. Filtering duration may be set to 2, 4, 6 or 8 hours or continuous filter (indicated by the FILC). The default filter time is 2 hours.

To set, press "Warm" or "Cool" then press "Jets 1". Press "Warm" or "Cool" to adjust. Press "Jets 1" to exit setting.

The first preset filter cycle start from 8AM to 10AM. The second preset filter cycle from 8PM to 10PM.

For non-circulating system, pump 1 (run at low speed) or ozone generator (if installed), will run during filtration.

For the circulatory system, the circulation pump and ozone generator (if installed), will run in 24 hours. If in hot environment, unless during the filtration cycle, otherwise the circulation pump may be turn off for 30 minutes. In the initial stage of each filter cycle, all other devices will run for a short moment to purify pipeline equipment.

SPA Series

Additional Filtration Cycle Setting

Basically you do not need to set the filtration cycle, but if you want it, in accordance with the order within 3 seconds press the "Time", "Mode / Prog", press the "Mode / Prog" again, **SET ATART FILTER 1** (AM) is displayed on the panel. Press "Warm" or "Cool" to reset the filter cycle's start time.

Press the "Mode / Prog" again, you will see **SET STOP FILTER 1**, then press "Warm" or "Cool" button to adjust.

Press the "Mode / Prog" again, you can see **SET START FILTER 2** (PM), then press "Warm" or "Cool" button to adjust.

Press the "Mode / Prog" again, you will see **SET STOP FILTER 2**, then press "Warm" or "Cool" button to adjust.

At last, press "Mode / Prog" to confirm the setting.

Panel Lock and Unlock

Note: In some systems (panels), "Blower" button is replaced by "Jets 1" button.

In accordance with the order within 3 seconds press the "Time", "Blower" then "Warm" to lock the panel. In accordance with the order within 2 seconds press the "Time", "Blower" then "Cool" to unlock the panel lock.

Temperature Key Lock and Unlock

Note: In some systems (panels), "Blower" button is replaced by "Jets 1" button.

In accordance with the order within 3 seconds press "Warm", "Time" then "Blower" to lock "Warm" and "Cool" button.

In accordance with the order within 2 seconds press the "Time", "Blower" then "Cool" to unlock the temperature button lock.

Diagnostic Messages

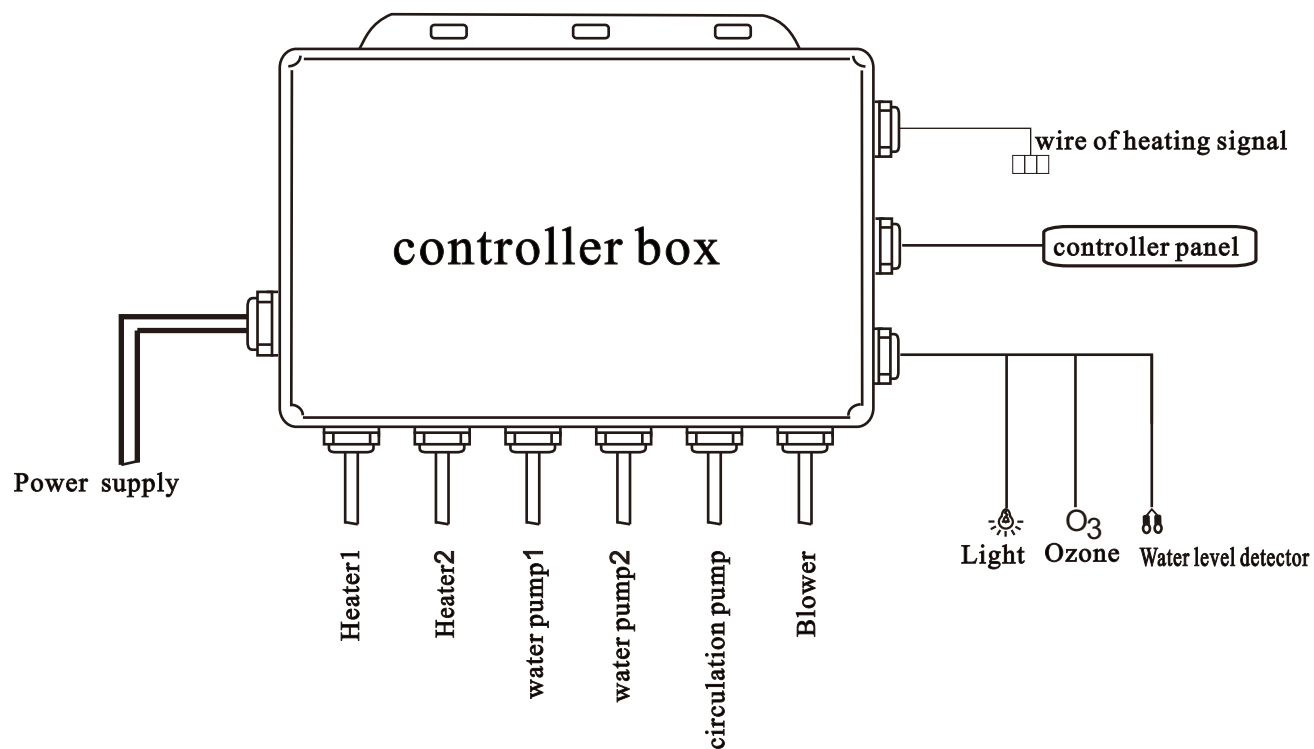
Messages	Meaning	Desired Operation
	Without any icons on the display screen. Spa power has been cut off.	Panel has no effect before the next power. Spa settings will remain in permanent memory.
--	Temperature Unknown	When heating pump run for 2 minutes, the current water temperature will be displayed.
OHH	"Overheated"- spa has shut down automatically. *One of the two temperature sensor detects the temperature of the heater is 118F/47.8C.	Do not fill up water. Remove the spa cover to cool the water. When the heater cool down, press any key to reset (restart) spa. If spa does not reset, cut off spa power then contact your dealer or service provider to deal with.
OHS	"Overheated"- spa has shut down automatically. *One of the two temperature sensor detects the temperature of the heater is 110F/43.5C.	Do not fill up water. Remove the spa cover to cool the water. When the water temperature drops 107F/41.7C Spa should automatically reset / restart. If spa does not reset, cut off spa power then contact your dealer or service provider to deal with.

SPA Series

OHS	"Overheated"- spa has shut down automatically. *One of the two temperature sensor detects the temperature of the heater is 110F/43.5C.	Do not fill up water. Remove the spa cover to cool the water. When the water temperature drops 107F/41.7C Spa should automatically reset / restart. If spa does not reset, cut off spa power then contact your dealer or service provider to deal with.
SnA	spa has shut down automatically. Insert temperature sensor plug A's temperature probe has a problem.	Turn off the power switch and then re-opened again. (This situation may temporary arise in the case of spa overheating) If the problem still exists, please contact your dealer or service provider to deal with.
Snb	spa has shut down automatically. Insert temperature sensor plug B's temperature probe has a problem.	Turn off the power switch and then re-opened again. (This situation may temporary arise in the case of spa overheating) If the problem still exists, please contact your dealer or service provider to deal with.
SnS	Two temperature probes to detect water temperature have problems. If two water temperature alternately on the display panel, which may be a transient phenomenon. If there is only one flashing temperature, spa will be turned off.	Turn off the power switch and then re-opened again. If the problem still exists, please contact your dealer or service provider to deal with.
HFL	Two temperature probes detected water temperature has a significant difference. This may mean that the water problem (insufficient).	If the water level is normal, make sure all the pumps are working properly and started. If the problem still exists, please contact your dealer or service provider to deal with.
LF	This is a continuous water shortage problem. (Within 24 hours of the fifth display "HFL" error message). Heater is stopped, but other devices will continue to operate normally.	Referring to HFL required operation to process. Spa heater (heating function) will not automatically reset / start; You can press any key to make it reset / restart.
dr	There may be insufficient water, insufficient water flow or bubbles problems etc. in heater. Spa will automatically turn off for 15 minutes.	If the water level is normal, make sure all the pumps are working properly and started. Press any button to reset / restart spa. This error message will restart the spa in 15 minutes (if you do not press any button to reset the spa). If the problem still exists, please contact your dealer or service provider to deal with.
dry	Detect inadequate water flow in heater. (Third display shows "dr" error message will show "dry"). Spa automatically shut down.	Referring to dr required operation to process. Spa will not automatically reset / restart. Press any key to make it reset / restart.
ICE	"Ice" - detect potential icing condition - Even SPA is in the closed state, some devices will automatically start to prevent freezing conditions.	No action required. No matter what kind state spa is, all the equipment will start automatically. When the temperature probe detects spa temperature has risen to 45F/7.2C or higher, all the equipment will continue to operate for 4 minutes and then closed. It may need to install an additional temperature sensor to prevent freezing of the abnormal situation. Recommending installing additional temperature probes in colder climates. Please contact your dealer to obtain further information.

Control System(III)

1. Wiring diagram



2. Diagram Instruction Of The Panel



1.power	9.heater
2.CD/radio	10.temperature
3.light	11.ozone
4.water pump 3	12.Volume
5.blower	13.up
6.water pump 1	14.down
7.water pump 2	15.switch
8.circulation punp	16.lock

3.Operation

- 1) .Press the power button, the display window will be blue.
- 2) . Press the light button, the light will work, the icon will be lighten in the display window, press the button again, the light will be closed.
- 3) .Sterilization and beautification. Press the ozone button, the ozone will work, the icon will be lighten in the display window, press the button again, the ozone will be closed.
- 4).Bubble. Press the blower button, the blower will work, the icon will be lighten in the display window, press the button again, the blower will be closed.
- 5).Surfing. Press the water pump 1 button when there is water, the water pump 1 will work, the icon will be lighten in the display window, press the button again, the water pump 1 will be closed, the operation way of the water pump 2 is the same as water pump 1.
- 6).Heater. Press the heater button when there is water, the circulation pump will start automatically, then the heater will work in a while, then the icon of the circulation pump and the heater will be lighten in the display window, press the heater button again, the heater will be closed, the circulation pump will be closed automatically 3 minute later when the heater is closed.

The status of the heater depends on the pressure switch and the temperature which is set. Temperature setting. Press the temperature and time setting button, the icon will twinkle and the temperature that is set last time will be displayed, press the button can set the temperature that is needed, the range is from 30℃ to 50℃, after setting, the icon of the temperature will display the temperature of the water.

If setting the temperature when the heater is working, during setting when the temperature is adjusted to lower than the temperature of the water, the heater will be closed automatically; when the temperature is adjusted to higher than the temperature of the water, the heater will work automatically.

7).Radio function. Press "RADIO / CD" button, you can listen to the radio program, and search it by tuning increase/decrease button one by one. Press increase/decrease button to turn up/down radio. When you search radio, LCD shows the current radio frequency; when you tuning, LCD shows the current volume.

Storing radio function. The storing radio program is available to choose by turns. Pressing storing radio system for a long time can search itself and store it. The LCD shows store channel, after automatic search, press continuously the button can store the radio program in the memory.

8).CD function. Press CD "turn/off" button secondly to turn on CD. Changing the size of the volume through "VOL + SET" and "VOL-OPEN" button, and the highest volume is 20.

9).Cycle function.

Manual mode: When the thermostat is off, you can press cycle button to turn/off cycle pump.

Automatic mode: When the thermostat is on, system will turn on cycle pump automatically, and at the moment, you can't turn off it manually. After turn off the thermostat for 3 minute, system will turn off cycle pump automatically.

10) . When tub's water level doesn't reach the location of top water level, 1.water pump 2.cycle pump(manual mode) are can't work.

11) . Lock function

After a few seconds of no working, button will lock itself and you need press it for a long time to unlock it.

4.Working environment.

1) Power: AC 220V

5) Water pump 1, 2: AC 220V

2) Circulation pump: AC 220V

6) Blower: AC 220V

3) Heater: AC 220V

7) Light: 12V 3W MAX

4) Ozone: AC 12V 600MA MAX

5.Notes:

1)User should read the instructions of this product carefully before installation, it will help the user install the product validly and reasonably.

2)User should note the mark of the high pressure that is indicated on the product, not to touch the place for your safety.

3)Please don't expose the controller in the environment of wet, high temperature and electromagnetic interference for a long time, and please wipe it clean with the dry towel after use.

4)Please keep the water in the bathtub clean and ensure there are no solid impurities left, or it will jam the hole of the water return and the pipeline, which will damage the equipment and the accessories. Please turn off the power immediately if there is jam, and restart after cleaning away the jam.

5) Please don't pull the output cable of the equipment, and don't rap and drop the equipment, which will damage the shell or the inside parts.

6) Please don't open the controller box if there is no professional maintenance man with you.

7) The voltage should match the working voltage of this product in order not to damage the controller.

8) When pressing the same button continuously, please repress it several minutes later after the last press to prolong the life of the controller.

9) Please don't insert or pull the controller panel when the power is on, or it will damage the equipment or abnormal situations will occur, under this situation, please turn off the power for several minutes, and then start again.

10) Please rightly insert the accessories (such as the light, speaker, radio tube, ozone, water pump, blower, steam generator) to the related terminals, or it will damage the equipment or cause danger.

11) If this product has the water level function, only when the water level reaches the place of the water level sensor, the water pump 1, 2 and the circulation pump can be open, and it will close automatically when the water level is lower than the place of the water level sensor.

6. Solution of the normal breakdown.

1. Question: Why the water pump, blower or the heater can't open?

Answer: Please check if the product has the water level function, if yes, please check if the water level sensor is good contact with the water; if no, please stop using and contact with our worker.

2. Question: Why the heater can't open?

Answer: Please check the temperature of the controller panel if it has exceeded the temperature of the water or the room.

3. Question: After pressing the button light, ozone, speaker, fan or air adjust, why there is no response?

Answer: Please check if the terminal is good contact with each other, if yes, the light and ozone are still no response, please check if the fuse is broken.

4. Question: What should be done if there is no sound?

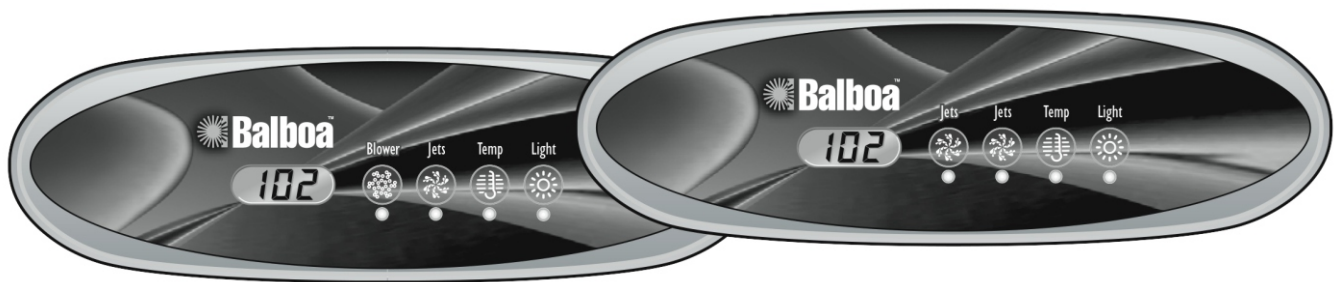
Answer: Please check the volume button on panel is up or not, if there is no response, please contact to our staff, and there are some reasons for your reference as below: the speaker port is losing contact; the relay to control speaker is not attract; the inner chip was burned-out; the speaker was breakdown.

5. Question: What's the reason if there is seldom program or noise?

Answer: Please check the position of wire, and loose the wire or change it to a suitable position.

SPA Series

Control System(IV)



Initial star-up

When your spa is first actuated, it will go into Priming mode, indicated by “Pr.” Please see the M-7 Installation Instruction Manual for complete instructions on Power-up and Pump Priming. The Priming mode will last for less than 5 minutes (press “Temp” or “Set” to skip Priming Mode) and then the spa will begin to heat the spa and maintain the water temperature in the standard mode.

Temp/Set(80°F-104°F/26 -40)

The start-up temperature is set at 100°F/37 . The last measured temperature is constantly displayed on the LCD.

Note that the last measured spa temperature displayed is current only when the pump has been running for at least 2 minutes.

To display the temperature, press the “Temp” or “Set” pad once.

To change the set temperature, press the pad a second time before the LCD stops flashing. Each press of the “Temp” or “Set” pad will continue to either raise or lower the set temperature. If the opposite direction is desired, release the pad and let the display revert to the current water temperature. Press the pad to display the set temperature, and again to make the temperature change in the desired direction.

After three seconds, the LCD will stop flashing and display the current spa temperature.

Note: If there is not a blower on the system, an alternate panel with separate “Up” and “Down” button in place of a “Set1” or “Temp” button may be used. Simply press “Up” or “Down” where a “Temp” or “Set” button press is indicated. (Ignore the “direction reversal paragraph.”)

Jets

Press the “Jets” button once to activate the low speed of the pump and again for the high speed. Press the “Jets” button again to turn off the pump. If left running, the low speed of the pump will automatically turn off after 4 hours, and the high speed will automatically turn off after 15 minutes. The low speed of the pump runs when the blower is on. It may also activate for at least 2 minutes every 30 minutes to detect the spa temperature and then to heat to the set temperature if needed, depending upon mode. When the low speed turns on automatically, it cannot be deactivated from the panel; however, the high speed may be started.

Blower(optional)

This button is used to turn the blower on and off. If left on, the blower automatically turns off after 15 minutes.

Jets 2(optional)

If your system has a pump 2 installed instead of a blower, it behaves exactly like a blower would.

SPA Series

Light

Press the “Light” button to turn the light on and off. If left on, the light automatically turns off after 4 hours.

Mode

Mode is changed by pressing the “Temp” or “Set” button, then pressing the “Light” button. Standard Mode is programmed to maintain the desired temperature.

Note that the last measured spa temperature displayed is current only when the pump has been running for at least 2 minutes. “5L” will be displayed momentarily when you switch into Standard Mode.

Economy Mode

Economy Mode heats the spa to the set temperature only during filter cycles. “E” will display solid when temperature is not current, and will alternate with temperature when temperature is current.

Sleep Mode

Sleep Mode heats the spa to within 20°F/10°C of the set temperature only during filter cycles. “SL” will display solid when temperature is not current, and will alternate with temperature when temperature is current.

Preset Filter Cycles

The first filter cycle begins 6 minutes after the spa is energized.

The second filter cycle begins 12 hours later. Filter duration is programmable for 2, 4, 6, 8 hours or for continuous filtration (indicated by “FL”). The default filter time is 2 hours.

To program, press “Temp” or “Set”, then “Jets”. Press “Temp” or “Set” to adjust. Press “Jets” to exit programming. The blower purges for 30 seconds at the beginning of each filter cycle. The low speed of the pump runs during filtration and the ozone generator (if installed) will be enabled.

Freeze Protection

If the temperature sensors detect a drop to below 44°F/6.7°C within the heater, the pump and blower will automatically activate to provide freeze protection. The equipment stays on until 4 minutes after the sensors detect that the spa temperature has risen to 45°F/7.2°C or higher. In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions that may not be sensed by the standard sensors. Aux freeze sensor protection acts similarly except with the temperature thresholds determined by the switch and without a 4-minute delay in turnoff. See your dealer for details.

Diagnostic Messages

Message	Meaning	Action Required
	No message on display. Power has been cut off to the spa.	The control panel will be disabled until power returns. Spa settings will be preserved until next power up.
--	Temperature unknown.	After the pump has been running for 2 minutes, the temperature will be displayed.
HH	“Overheat”-The spa has shut down. One of the sensors has detected 118°F/48°C at the heater.	DO NOT ENTER THE WATER. Remove the spa cover and allow water to cool. Once the heater has cooled, reset by pushing any button. If spa does not reset, shut off the power to the spa and call your dealer or service organization.

SPA Series

Message	Meaning	Action Required
OH	“Overheat”-The spa has shut down. One of the sensors has detected that the spa water is 110°F/43°C.	DO NOT ENTER THE WATER. Remove the spa cover and allow water to cool. At 107°F/42°C, the spa should automatically reset. If spa does not reset, shut off the power to the spa and call your dealer or service organization.
IC	“Ice”-Potential freeze condition detected.	No action required. The pump and blower will automatically activate regardless of spa status.
SA	Spa is shut down. The sensor that is plugged into the Sensor “A” jack is not working.	If the problem persists, contact your dealer or service organization. (May appear temporarily in an overheat situation and disappear when the heater cools.)
SB	Spa is shut down. The sensor that is plugged into the Sensor “B” jack is not working.	If the problem persists, contact your dealer or service organization. (May appear temporarily in an overheat situation and disappear when the heater cools.)
Sn	Sensors are out of balance. If alternating with spa temperature, it may just be a temporary condition. If flashing by itself, spa is shut down.	If the problem persists, contact your dealer or service organization.
HL	A significant difference between temperature sensors has been detected. This could indicate a flow problem.	Check water level in spa. Refill if necessary. If the water level is okay, make sure the pumps have been primed. If problem persists, contact your dealer or service organization.
LF	Persistent low flow problem. (Displays on the fifth occurrence of “HL” message within 24 hours.) Heater is shut down, but other spa functions continue to run normally.	Follow action required for “HL” message. Heating capability of the spa will not reset automatically; you may press any button to reset.
dr	Possible inadequate water, poor flow, or air bubbles in detected in heater. Spa is shut down for 15 minutes.	Check water level in spa. Refill if necessary. If water level is okay, make sure the pumps have been primed. Press any button to reset, or this message will automatically reset within 15 minutes. If problem persists, contact your dealer or service organization.
dy	Inadequate water detected in heater. (Displays on third occurrence of “dr” message.) Spa is shut down.	Follow action required for “dr” message. Spa will not automatically reset. Press any button to reset.

Warning! Shock Hazard! No User Serviceable Parts.

Do not attempt service of this control system. Contact your dealer or service organization for assistance. Follow all owner’s manual power connection instructions. Installation must be performed by a licensed electrician and all grounding connections must be properly installed.

VI. Maintenance

The Company's SPA series are environmental protection energy-saving products, the water in the tank can be reused, we respected the normal household replaced water once a month. (according to actual usage) If you do not use the product in a short time, without draining the water, keep the water to a normal level.

But when there is water in the tank, you need to maintain normal power supply, can not turn off the power (If power off, SPA heating system and filtration system do not work cause the pipe cracking, or the water can not keep clean.)

1. Nozzles Usage

The spa's nozzles are in multi-species model.

1.1 Double Hole Rotary Massage Nozzle

Replaceable double hole rotating nozzle allows water to form a V-type massage, rotating massage nozzles strong but not pain; and can be adjusted massage intensity by rotating the nozzle cover ,until you close the flow.

1.2 Single Hole Rotary Massage Nozzle

Water sprays by rotating nozzle, cyclically massage on the back, expanding the massage area; and can be adjusted massage intensity by rotating the nozzle cover ,until you close the flow.

1.3 Single Hole Massage Nozzle

Adjusting the direction of the single hole massage nozzle, the nozzle can be used for any swing in the axial direction of 360 degrees to give different spray orientation massage, massage intensity can be adjusted by rotating the nozzle.

1.4 Multi-hole Spray Massage Nozzle

Within each nozzle has a plurality of holes, a lot of gentle spray of water from these holes, full soft and comfortable to relax back; while can be adjusted massage intensity by rotating the nozzle cover ,until you close the flow.

1.5 Single-hole Small Nozzle

These nozzles distributed in different locations in massage bathtub, massage bathtub can massage in different parts of the user, to be completely relaxed.

2. Switching Valve Usage

(Only for massage cylinder with valve switch)

When switching valve knob twisted to one side, closing a group of nozzle; When switching valve knob twist to the other side, close another set of nozzles. When switching valve knob twist to the middle, two groups of nozzles fully open.

3. Air Control Valve Usage

(Only for massage bathtub with air conditioning valves)

By adjusting the air control valve can control the number of groups of nozzles into the gas until completely closed.

4. Lift Speaker Usage

Speakers at the contracted state, down honk the horn lightly, speaker becomes raising state.

Speakers at the rising state, down honk the horn lightly, speaker becomes contraction.

5. SPA Insulation Cover Usage

Use pool cover can better maintain water quality, and temperature, while the use of pool covers to avoid direct sun shining, extending the life of the product. After each use, the plant requires SPA best cover pool cover, and set a password (password: 00)

6. Paper Core Filter Maintenance

A clean filter is important for filter system and massage system, at least detecting paper core once a week, remove extraneous impurities. Paper core filter cleaning cycles depends on frequency use of massage bathtub, we recommend cleaning every 14 days, six months to replace the new paper core. Otherwise, the filter will likely to hinder and restrict water flow speed, filter and massage appeared ineffective phenomenon.

Note:

The higher frequency use of massage cylinder, the longer and the more the number, the shorter the paper core filter replacement cycle.

Turn off the power, then follow the following steps:

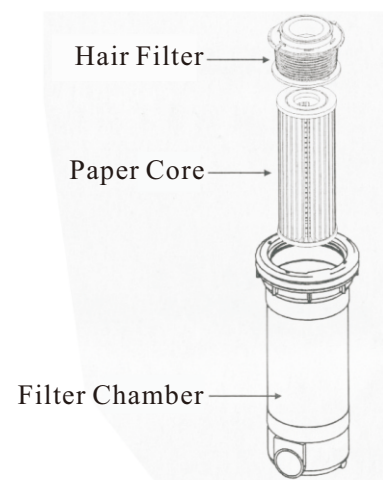
1. If your SPA paper core filter shown in Figure 1, follow a few steps.

1.1 According to the counter clockwise direction screw filter rotary locking cover.

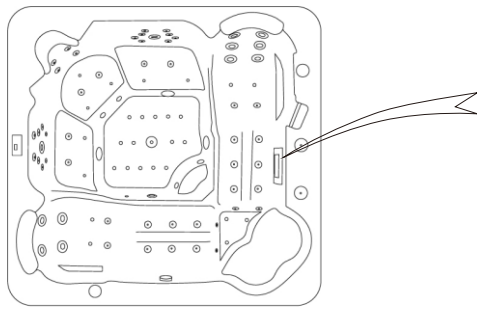
1.2 Be careful to dial out the core from the water tank;

1.3 Wash the paper core with water, and a separate of paper core rotation pleats during rinsing, so as to flush out impurities in the paper core; then dried paper core, search the paper core whether left to find the calcium precipitates, if you need to clean out these minerals precipitate.

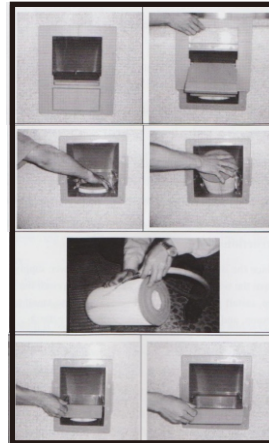
1.4 Before removing the paper core by positioning the core back into the tank, and tighten the filter tighten cover. Tight lid.



Picture 1



Picture 2



If your filter structure is chart 2, please refer to the above picture to operate.

1. Water Quality and Maintenance

Unclean water will greatly reduce the performance of massage pool, and massage bathtub's service life, and even endanger people's health, so the use of clean water for massage bathtub is very important.

Water maintenance includes: PH value control water hygiene. Chemical composition contrast refers to by adding chemicals to maintain the total alkalinity (TA), water hardness (CH) and PH value within reasonable limits, to properly control the PH value can effectively prevent the formation of scale, prolonged the use of massage bathtub life, and can increase the efficiency of disinfectants; Water hygiene is the regularity and periodic (preferably daily) for a massage with sanitizers to disinfect water tank, sanitizers general approach is to add chemicals to control bacteria and viruses in the water and brought with the user.

2.1 Adding Chemicals

When you add chemicals to be in strict accordance with the instructions required to use the drug, do not add an excess of chemicals to massage bathtub. Chemicals should be added to the tank, and then start the circulation pump and massage pump, at least running for ten minutes.

2.2 Total Alkalinity Adjustment

The total alkalinity of the water in massage tank maintained at 125-150ppm is the most reasonable. If the total alkalinity of the water is too low, it may cause instability in PH value, may increase the alkalinity by using sodium bicarbonate; If the total alkalinity of the water is too high, the stability of PH value is too high, it's difficult to adjust, use sodium bisulfate to lower the total alkalinity.

2.3 PH Value Adjustment

PH value too high or too low will be harmful to the cylinder, so the massage tank water PH value 7.4-7.6 is the most appropriate. If the PH value is too low, you can add charcoal sodium bicarbonate to the water; If the PH value is too high, you can add sodium bisulfate to the water.

2.4 Adjust water hardness

The total alkalinity of the water in massage tank maintained at 125-150ppm is the most reasonable. If the total alkalinity of the water is too low, it will damage the spa tub equipment, turn the color of the outer shell, but you can add chemical medicine to increase the water hardness; If the total alkalinity of the water is too high, it will form scale in the surface of tub and equipment, you can add alum, but the water hardness is still keep within recommend value.

2.5 Disinfect for spa tub

Disinfecting water in the spa tub is a very important step, it will grow many bacterial and virus, they are damaged to our body, so, you should disinfect for spa tub regularly, we recommend you crystal chlorine.

A. Chlorine kills bacterial and virus by decomposing under chemical reaction in water, the most reasonable value of effective rest chlorine is within 3.0-5.0ppm(one in a million)

B. It is important to keep moderate chlorine when operating the spa tub.

C. If there is too low rest chlorine, bacteria and viruses will rapidly growth in warm water.

D. If there is so many rest chlorine, it will make user feel his eyes, lungs and skin uncomfortable. The effective rest ammonia will decrease as time going.

Note: When you choose disinfectant, it is must be exclusive for spa tub, liquid or condensed bromine, chlorine or acid can not be used for Disinfect.

2.6 The Effect of Water Quality to the Equipment

2.6.1 Water in the massage tank over time will slowly evaporate, this would increase the mineral content of the water, water in massage tank gradually become harden, it will have the inner wall thermostat device to produce scale resulting great damage to thermostat; Usually iron or copper in water has a high content of water in the massage tank will turn green or brown, it will dirty massage cylinder surface. So massage tank should often replace or add the right amount of minerals inhibitors to the water.

2.6.2 Keep the water in massage cylinder clean and prevent hair and debris clogging phenomenon, prevent impurities clogging massage nozzles to affect the efficacy of massage, and even affect the automatic thermostat device.

3. Massage Cylinder Surface Maintenance

3.1 As massage bathtub's main material is acrylic, stains or dirt are generally buildup on the surface of massage cylinder, so use a soft cloth to easily remove most dirt. Do not use any abrasives, solvents or irritating chemicals, they are likely to cause great damage to the massage cylinder surface. Avoid using dark cleaners, as it's easily lead pigment into massage cylinder surface.

3.2 Do not use sharp objects or hard object hit or impact acrylic surface to avoid damage; Do not wipe the acrylic surface with corrosive liquid, so as not to damage the surface gloss; Do not wipe the acrylic surface with a rough material to avoid scratches.

4. Massage Cylinder Cover Maintenance

4.1 Massage cylinder cover is made of leather and plastic foam products, do not push hard to avoid cylinder cover's deformation, damage.

4.2 Massage cylinder cover is only used to maintain the water temperature, when not in use to prevent outside dust falling in the pool, and to prevent children falling into the pool, resulting in accidents.

4.3 Massage cylinder must be cleaned once half a month, in the case of special circumstances (such as: after the wind and rain, the storm, and other human or non-human stains) Please be promptly cleaned.

4.4 Massage cylinder cover cleaning steps are as follows:

4.4.1 Open the massage cylinder cover slowly, and put it against the wall.

4.4.2 clean the dirt and the mud on the massage cylinder cover with semi-wet cloth.

(Note: Should not be cleaned with acid or caustic cleaning agents, such as improper use and maintenance, or man-made damage, not within the scope of the product warranty.)

5. Ozone Generator Usage and Maintenance

5.1 Due to the usage characteristics of ozone, when the ambient temperature exceeds 30 degrees, we must ensure that the cylinder cover has been covered, or products of other items in the shade, or else water can not be guaranteed clear; If it must be in excess of this use environment, you need to put other auxiliary drugs to ensure water quality, but for all the consequences arising therefrom is not within the scope of the product warranty.

5.2 Air source is very important to ozone generator's performance and life, if qualified, please extends air inlet to a air dry, well-ventilated place, such as skirt edge (pay attention to water), will be very beneficial to element, especially sunken installation with particular attention.

5.3 Ozone generators are consumption devices. in normal use for a year and a half to be replaced with new parts to ensure good performance.

Thank you for purchasing and using our products again.

The company will sincerely service for you.

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