

1. I、 Illustration to buttons

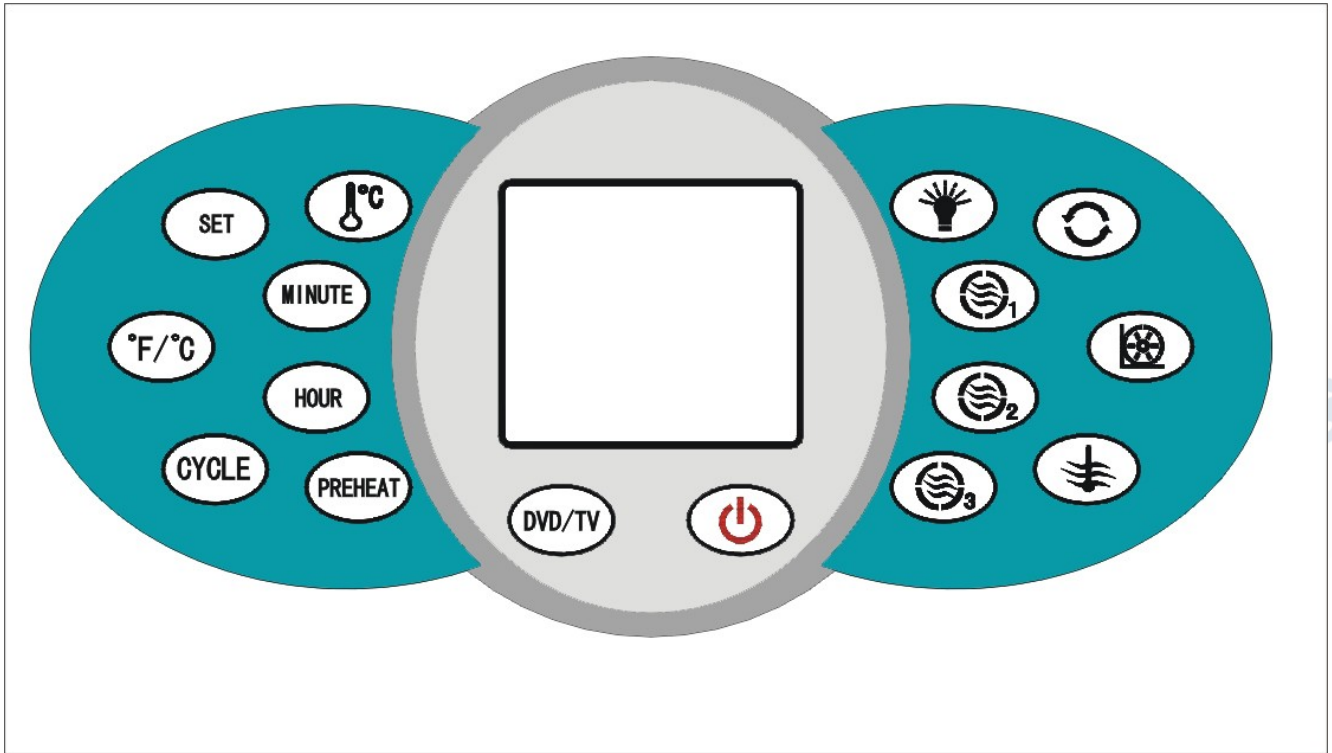


Fig.1: Control Panel

“” set temperature	“” on-off/setting confirm
“” adjust minute	“” spa light on/off
“” adjust hour	“” surfing pump 1,2 on/off
“” set preheating	“” view pump on/off
“” setting shift	“” surfing pump3 and circulation pump on/off
“” °F or °C shift	“” lasting circulation cleaning On/off
“” set circulation cleaning program	“” blower on/off
“” on/off DVD/TV power	“” Heater on/off

Note: On the panel, all the function listed in blue letter only works on the “off” mode

II、 Function Summary

- 1、 Max. with 6 KW heating system, set preheating, set and display water temperature
- 2、 Max. with 3 surfing pumps,1 circulation pump,1 view pump, and 1 blower.

- 3、Ozone and spa lights.
- 4、Power supply for circumscribed DVD and TV
- 5、Setting lasting circulation cleaning or periodic circulation cleaning
- 6、Displaying and setting hours and minutes.
- 7、Memory preserve once power off
- 8、Fahrenheit & Celsius degree shift
- 9、Antifreezing functions
- 10、Keys with backlight
- 11、Lock mode
- 12、Three-phase or single-phase, available on 110-120VAC or 220-240VAC
- 13、Option of power control
- 14、Option of galvanoscope device

III、 Operation

1. When the spa is connect with power, the backling of control panel will be dimmed, and LCD screen on the panel will be displaying time and current water temperature, and the radio channel will be display “---”. Under the situation, it indicates the spa system is in power-off model, the preheat and circulation cleaning functions are off. (see the following fig3,4 displaying)

If the water temperature sensor wire is disconnected, the screen will display“E1”, if the water temperature sensor is short circuit, the screen will display” FF”. In this case, the heater can not work normally, please check the wire of which is connecting with the water temperature sensor.



Fig.3: Temperature normal display

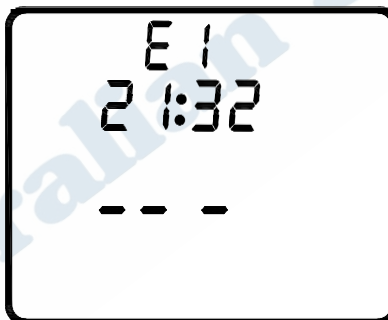


Fig.4: water sensor disconnected or short circuit display



2、 Adjusting Time:

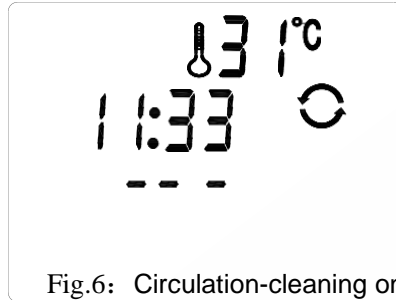
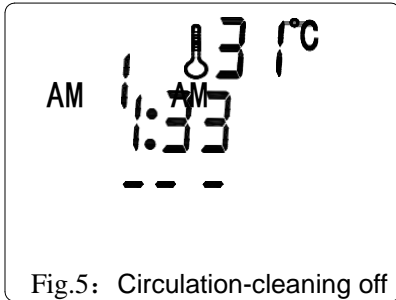
In the “Power off” mode and the preheating and circulation cleaning are without working. Pressing “**MINUTE**” or “**HOUR**” to adjust times . The Minute and Hour display flash at this time. It will add 1 hour when pressing “**HOUR**” each time , and the hours can be added continually when pressing the “**HOUR**” without stopping. The hour adjustment range is 0-23.

In the status of time setting It will add 1 minute when pressing “**MINUTE**” each time, and the minutes could be added continually when pressing the “**MINUTE**” without stopping. The minute adjustment range is 0~59






The system will quit the time-setting status automatically after 6 seconds without pressing any keys



3、 Set circulation-cleaning:



Only one circulation-cleaning program can be set in one day. The circulation cleaning working status will be displaying on the LCD screen. When it works or not can see from the screen. If the “” signal is displaying on the screen, it indicates the circulation-cleaning is on, and the “” signal is disappeared, it indicates the circulation cleaning is off. See following Fig . 5-6.





All the setting steps of circulation-cleaning must be operated on “power-off” mode, the LCD screen will be displaying “---” under that mode.

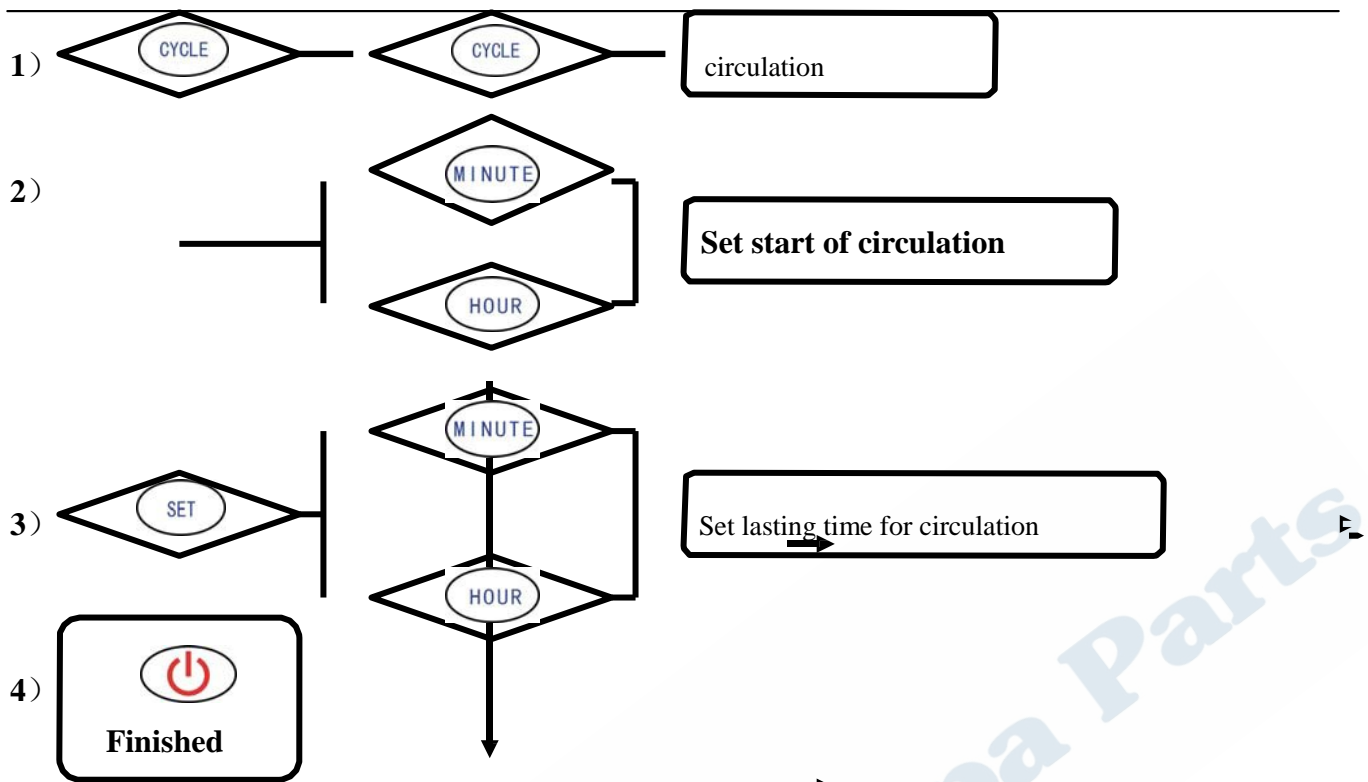
1)、 Press “” to enter Circulation-cleaning setting status and the LCD will be flashing “”. When this “” is flashing, it means circulation cleaning status is on, is ready to set the start time of circulation cleaning. Pressing “” again to turn off the circulation cleaning status, and then the “” will disappear.(see the following diagrams)

2)、 Press “” (minutes) and “” (hours) to adjust the time.

It will add 1 minute when pressing “” each time and the minutes could be added continually when pressing the “” without stopping. The adjustment range is 0-59.

It will add 1 hour when pressing “” each time and the hours could be added continually when pressing the “” without stopping. The adjustment range is 0-23.

After setting the start time of Circulation-cleaning, and move on to set the working time of circulation-cleaning.



3)、 Press “**SET**” to set the circulation times; it will show the minimum (minimum 5 minutes) on the LCD and this time will not flash. It will add 5 minutes by pressing “**MINUTE**” each time. It will add 1 hour by pressing “**HOUR**” each time. The maximum working time is 19 hours and 55 minutes. When you have completed this procedure continue to the next setting.

4)、 If all settings have been set correctly, set Press “**Power**” to confirm, the system will quit this mode automatically (or press key “**CYCLE**” to clear settings and exit).

*****Notice*****

- 1 All the setting of Circulation-cleaning must be set under Power Off mode**
- 2 Circulation PUMP and OZONE are not working during the setting process of circulation cleaning.**

4、 Set preheating (if required):

Only one pre-heating setting is allowed each day if required. The LCD can show clearly in the following figures whether pre-heating settings are set or not

See following Fig.7-8:

Only one preheating setting program can be set in one day if required. The preheating working status will be displaying on the LCD screen. If the “ON” signal is displaying on the screen, it indicates the preheating is working, and the “OFF” signal is displaying on the screen, it indicates the preheating is not working. See following Fig

. 7-8.

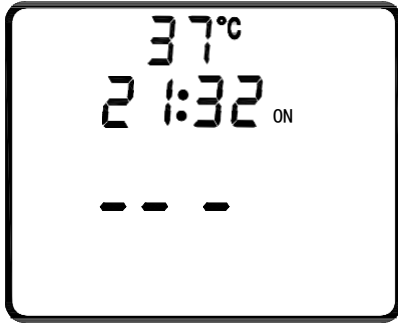


Fig.7: Preheat On

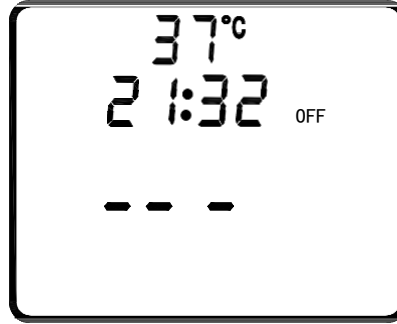
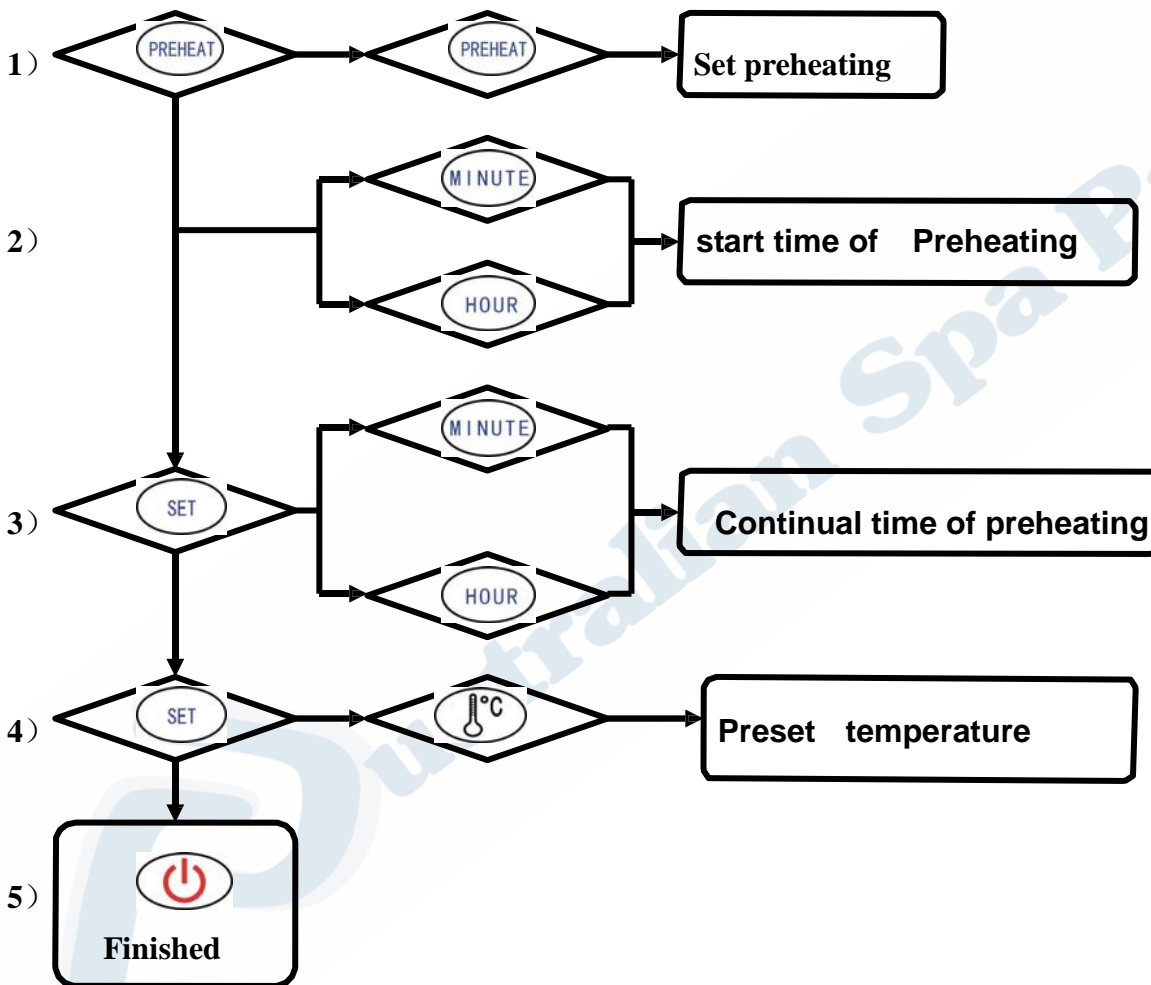


图 8: Preheat Off

Preheating is set when the spa is in the "Power off" mode, and the LCD displays "---" signal







1) 、 Press “**PREHEAT**” and enter Preheating setting status, and the LCD displays “ON”, and “PREHEAT” will be flashing, it means the preheating setting is available, can set the start time of preheating.

To press “**PREHEAT**” again , will turn off the preheating setting. “OFF” will displays on LCD, without flashing, and quit out the setting status.




When the system enters into preheating mode, the setting time will be flashing on the LCD (this time is the beginning time of preheating)



2) If the preheating setting status is on, only “**MINUTE**” and “**HOUR**” are available to change the time



It will add 1 hour when pressing “” each time, and hours could be added continually when pressing the “” without stopping. The adjustment of hours is 0-23

It will add 1 minute when pressing “” each time, and minutes could be added continually when pressing the “” without stopping. The adjustment range is 0~59

After the start time of preheating is , proceed to the next step.

3) Press “” to set the continual time of preheating. The LCD displays the minimum continue time, 10 minutes. And this time will not flash on LCD screen. It will add 10 minutes by pressing “” each time, and it will add 1 hour when pressing “” each time. Please note that the maximum continual time is 19 hours and 50 minutes. After set the preheating time, you may proceed to the next step.

4)、 After set the preheating continual time, Press “” again to shift to set water temperature status, LCD will display “ SET” . Press “” key to set temperature degree. The range of degrees is: 15~40°C 。

5)、 after set all step, to press “” one time to confirm the system will quit out preheat setting status. (pressing “” key to clear up all settings and quit out).

*****Notice*****

1、 All setting of preheating must be in Power OFF mode, the LCD will display “---”

2、 Please note that it shows "on" or "off" on the LCD. "on" means preheating is turned on mode. when the time is reach the start time of preheating, the heater will start working automatically. "off" means the heater won't start to work at any time.

3、 Circulation PUMP and HEATER without working while setting preheating.

5、 Operation of preheating:

When the current time is reaching the start time of preheating and the tubis filled with enough water, the LCD screen shows “on”, the heater will start to work automatically. The heater, circulation pupm and time counting work atsimultaneity. The countdown time will be shown on the LCD screen, till the preset time is finished.

During the preheating, The preheating will be turned off automatically once the preset time is finished.

Or Pressing the “” or “NO/OFF” key to turn off the preheating.


*****Notice*****

1、 If the preset temperature is lower than or equal with the current water temperature, Even the Preheating is on, but the circulation PUMP and HEATER won't be working。



- 2、 When the HEATER is “1” type frame, The power of circulation PUMP must reach 750W.
- 3、 Conditions meet the above “2”, and the HEATER is still not working, please check if the water in tub is reaching the water level sensor. If water not reaching, please fill more water, otherwise the heater won't be turned on too.

6、 Circulation-cleaning:

As the current time is as same as the preseting time, the preset is “on” too and the tub is filled with water, the circulation cleaning will start, the circulation pump works at the same.. The LCD shows the countdown time. All the surfing pumps and blower will work for 30 seconds at every 30 minutes. The Ozonier works for 15 minutes at every two hours.

The circulation cleaning will be turned off automatically once the countdown time is finished or By pressing the “” key to turn off directly.

7、 Operation to Power ON/ OFF

Pressing the key “” in “power-off” mode to enter the “power-on” mode. To press the “” in the status of “power-on” to enter the “power-off” mode. The LCD screen displays the “ON” or “OFF” signal. See following Fig.9-10

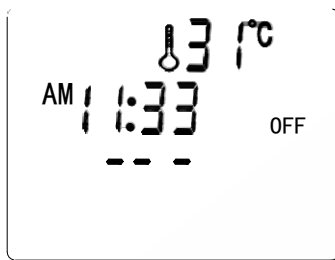


Fig.9: Power Off

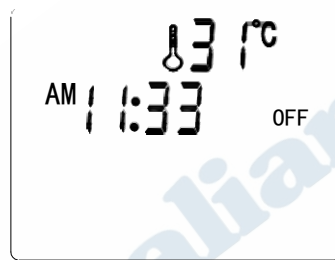









Fig.10: Power On


8、 Temperature setting:

In the “Power-on” mode, it will add 1 degree to press “” each time, the degrees will be added continually by press “” without stop, till reach 40 centigrade degrees (or 106 Fahrenheit degrees). Press “” again, and the temperature will come back 15°C (59 Fahrenheit). The range of adjustment is: 15~40°C (59~106 Fahrenheit).



9、 Operation of Pump:

The “” key controls surfing pump 1,2. The “” key controls view pump ; The “” controls surfing pump 3 and the circulation pump. When pump 3 is turned on the LCD will show “”. Once the circulation and heating or preheating start, the circulation pump will start to work automatically.

10、 Operation of lasting circulation cleaning:

Press the key “” at any time to turn on or off the lasting circulation cleaning, working status is like the preset circulation cleaning. The surfing pumps and blower work for 30 seconds at every 30 minutes. Ozonizer works for 15 minutes in every 120 minutes, and keep working in a repeat circle.

Once any surfing pumps or blower start, the ozonizer will stop at once. The ozonizer can not work if the circulation pump is without working.


During the long periodic circulation cleaning, to presses “” key to turn off the heater which is synchronous working, at this moment, the heater cannot restart by press “” key.

IMPORTANT: Please don't turn on the ozonizer if someone is bathing or in the spa.

11、 Operation of spa lights:

Press the “” key to control the ON/OFF of the the LED lights and the Fiber optic lights.


12、 Setting constant Temperature:

1)、 When the current time is reaching the set start time of preheating, the heater will start to working automatically. Or press the “” key to start the constant temperature heating directly..


2) Once the heating start, the circulation pump will work automatically.

3)、 If the temperature is set at 35℃, when the water temperature reaches or exceeds 36℃, the heater will be turned off automatically and the circulation pump will stop after 5 seconds. When the water temperature reaches or is lower than 34℃, the heater will start up again.


4)、 If there is an error on the temperature sensor, the LCD will displays "E1" or "FF". If this happens, the thermostatic heating sytem will NOT be available, the heater doesn't work.

5) “” Key's use: the first pressing to start the circulating pump, the second pressing to starts the heater, the third pressing to closes the circulating pump and the heater.

13、 Operating the Air Blower:

Pressing “” controls the blower. The blower can be turned on without water.

14、 Fahrenheit & Celsius Temperature shift:

In the f“Power off” mode, pressing the key “” can shift between the Fahrenheit and Celsius degree

15)、 If the water in spa is not enough reaching the water level sensor, all the surfing pumps and heating system can not be started, the corresponding signals will flash on the LCD screen.

16、 Prevent freezing function:

The heater & circulation pump will work automatically once the water temperature is below 5℃, when the water temperature is reach at 10℃, heating function will stop. This function is only available while the spa is connected with normal power supply.

IV、 Electric parameters

1、 Performance index:

Rated voltage: 220V/50Hz

Maximum working current: 60 A/220V—240V~

Voltage-resistance: 1250V/1 minute without penetration。

Isolative resistance: » 200M Ω

Water resistance grade: IPX5

Electric shock resistance: first grade

(2) Output loading index

Heater: AC220V/3KW x 1

Surf Water pump: AC220V/2 HP x 3

water pump: AC220V/1HP x 1

water pump: AC220v/0.35HP x 1

Air pump: AC220V/0.7kw x 1

spa light: AC12V/5W x 2

Ozone: AC12V/15W x 1

- Radio: 1) Frequency Range: FM: 87.0~108.0MHz
 2) Maximum Output Power: 10W
 3) Speaker: 8Ω damp proof speaker


5.Warning Information

- a. Means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.
- b. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- c. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- d. Children should be supervised to ensure that they do not play with the appliance.
- e. Details concerning cleaning and other maintenance
- f. Maintenance of water purity, especially PH values and chlorine concentrations.
- g. Cleaning and disinfection
- h. Use and installation of a cover.
- i. Disposal of water
- j. Precautions to avoid damage due to water freezing
- k. Precautions to avoid damage when the appliance is left empty for extended period.

2.2 Sub-clause 7

The installation instruction shall state the substance of the following:

- Earthed appliances must be permanently connected to fixed wiring;
- The appliance should be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.
- The floor has to be capable of supporting the expected load.
- An adequate drainage system has to be provided to deal with overflow water.
- Details of how to follow the wiring rules, for example, specifying that parts are installed in the correct zone and that equipotential bonding is carried out.

<p>WARNING</p> 	<ol style="list-style-type: none"> 1、⚠️ DANGER: RISK OF ELECTRIC SHOCK, Connect only to a circuit protected by a Ground Fault Circuit Interrupter. 2、 Grounding is required. The unit should be installed by a qualified service representative and ground. 3、 FOR YOUR SAFETY-This product should be installed by a professional service technician,qualified in hydrotherapy bath installation. 4、 It's prohibited to cover the instrument with something while opeating. 5、 when using at the first time ,Be sure there is water in heater pipe before staring. 6、 parts containing live parts, except parts applied with safety extra-low voltage not Exceeding 12V,must be inaccessible to person in the bath; 8、 earthed appliances must be permanently connected to fixed wiring; 9、 the appliance should be supplied through a residual current device (RCD)having a rated residual operating current not exceeding 30 mA. 10、 If the mains cord of this appliance is damaged,It must only bereplaced by our service representative,As special tools and/or parts are required
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Solutions of Fault

Phenomenon	Reason	How to Solve the problem
No power supply	<ol style="list-style-type: none"> 1. The electric leakage switch was breaked off 2. The Fuse be break off 	<ol style="list-style-type: none"> 1. Check and eliminate the malfunction, restart the spa 2. Please change fuse
No display on control panel	<ol style="list-style-type: none"> 1. The plug which connected with the panel loose or disconnected 2. The Panel happened with malfunction 	<ol style="list-style-type: none"> 1. to connect the plug of the control panel and the main box 2. Change a new control panel
LED light not work	<ol style="list-style-type: none"> 1. Power of the light be break off 2. Fuse be break off 3. light be burn 	<ol style="list-style-type: none"> 1. To check if cable of the light is well connected with main box or not 2. Change a fuse 3. Change a new lampwick
Ozone not work	<ol style="list-style-type: none"> 1. Ozonater burn 2. Fuse be break off 3. Cable of the ozonater be cut off 	<ol style="list-style-type: none"> 1. Change a new ozonator 2. change a fuse 3. check if the cable of the main power is connected with the main box or not.
Displaied "E1""FF" in control panel	<ol style="list-style-type: none"> 1. temperature detector be cut off or shortcirculate 2. plug of the temperature detector be nundated by water 	<ol style="list-style-type: none"> 1. Connect the temperature detector 2. Change a new temperature detector
being incapable of activate water pump, and water pump icon flashing	<ol style="list-style-type: none"> 1. water not achieve the appointed level 2. water detector not connect well 	<ol style="list-style-type: none"> 1. To add more water to make it up to the water detector 2. To re-connect the line of water detector

<p>Heater not work, and heating icon on panel flashing</p>	<p>1. setting water temperature lower then the water temperature</p>	<p>1. set the temperature degrees higher than the water in tub temperature(between 15 and 43 °C.</p>
<p>Leakage</p>	<p>1. silicon plaster not good 2. PVC plaster not good 3. Blow out of the water pipe</p>	<p>1. To remove the jets then re-install one 2. To plaster once again Change water pipe</p>

