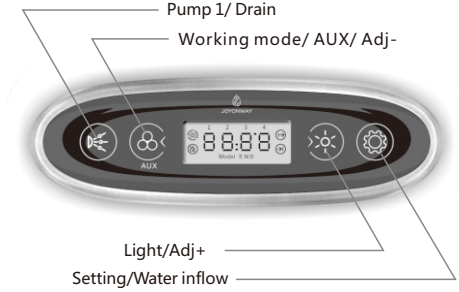
⚠ WARNING

1. **Please connect power strictly accoding to the SPA power data plate.**
2. **Please do not turn the SPA power on until the water reaches water level line inside the tub.**

⚠ WARNING

Please set time and date before using the SPA control system.



Main interface: the below two interfaces will be displayed in turn:

Ⅰ. Functions

Pump 1

When the control system is powered on and not in sleeping mode, if pump 1 is set as single speed pump, then press the key to control the on /off of pump 1. If pump 1 is set as double speed pump, then press the key to control the low speed, high speed and turning off of pump 1.

Pump 1 will turn off automatically after running for a certain period of time.

Drain (when the control system is equipped with this function)

When the control system is powered on and not in sleeping mode, press the key for 2 seconds to control the on/ off of drain solenoid. When the drain solenoid is on, " " will be displayed in the main interface.

Pump 2  (when the control system is equipped with this function)

When the control system is powered on and not in sleeping mode, or setting mode, press the key to control the on / off of pump 2

Pump 2 will turn off automatically after running for a certain period of time.

Blower  (when the control system is equipped with this function)

When the control system is powered on and not in sleeping mode, or setting mode, press the key to control the on / off of blower.

Blower will turn off automatically after running for 30 minutes.

Manual cycle pump  (when pump 1 is set as single speed pump and the system does not have pump 2 or blower function)

When the control system is powered on and not in sleeping mode, or setting mode, press the key to control manual cycle pump.

When heating cycle pump or timing water cycle or pump 1 is started, cycle pump can not be manually turned off.

Manual cycle pump will turn off automatically after running for a certain period of time.

Working mode 

When the system is powered on and not in setting mode, press the key for 2 seconds to switch the working mode.

The system has three working modes(the system being powered is considered as standard mode by default):

Standard mode (LCD displaying Model N): heating function will be valid in 24 hours. If system time falls in water cycle set time period, filtering water cycle function will be valid.

Economy mode (LCD displaying Model E): if system time falls in water cycle set time period, filtering water cycle function is valid; if system time falls in heating set time period, heating function will be valid. If system time is out of the set time period, freezing proof function will be started.

Sleeping mode (LCD displaying Model D): freezing proof will be started and other loads will be turned off and can not be controlled by keys.

Light

When the control system is powered on and not in sleeping mode, or setting mode, press the key to control light. Press the key for 2 seconds to turn off the light in short time. Light will automatically turn off after working for 2 hours.

Light has two modes. In on/ off mode, light turning on and off are controlled. In RGB mode, the control regulation is as below:

state 1 auto color change (color changing among state 2 to state 8 in cycle)
state 2 red
state 3 green
state 4 yellow
state 5 blue
state 6 purple
state 7 cyan
state 8 white
state 9 turning off

Water inflow (when the system is equipped with this function)

When the control system is powered on and not in sleeping mode, press the key for 2 seconds to control the water inflow solenoid. When the water inflow solenoid is on, "" will be displayed in the main interface.

When water is detected in the system, water inflow solenoid will be turned off automatically.

Freezing proof

When water temperature is lower than 6℃ (43℉) , heating will be started. When the temperature reaches 10℃ (50℉) , heating will be turned off.

Water level sensing (when the system is equipped with this function)

If the control system is equipped with water level sensing function, pump, cycle pump, and heating can only be started when there is water detected. If no water is detected in normal usage, the mentioned loads will be turned off.

Timing water cycle

When system works in standard and economy mode, timing water cycle is valid. In sleeping mode, timing water cycle is invalid.

The control system has two water cycle setting time periods. Before usage, please set the two time periods.

If the system time falls in either of the time periods, water cycle will be started. If the system time is in neither of the time periods, water cycle will be turned off.

Ozone

Ozone will be turned off when pump, blower, water inflow or draining is started.

When pump, blower, water inflow and draining are turned off and heating cycle pump or timing water cycle is started, ozone will be automatically started. When both heating cycle pump and timing water cycle are turned off, ozone will be turned off automatically.

Heating

Heating function will be started automatically in standard mode. In economy mode, it will start in set time periods. In sleeping mode, it will start when temperature is lower than 6℃.

When heating function is started, and water is detected(if system is equipped with water level sensing function), heating cycle pump will be started in ahead then heating will be started; if heating is turned off, heating cycle pump will be turned off after a while.

II . Setting

Temperature unit

When the system is powered on and not in setting mode, press "" and "AUX" at the same time for 2 seconds to change the temperature unit (℃ or ℉). And system will store the temperature unit.

Temperature setting

When the system is powered on, press "" till entering temperature setting interface. LCD will display with flash temperature unit. Press "AUX" and "" to set the temperature value. And setting range is 10~40℃ (50~104℉). And system will store the set temperature value.

Clock setting

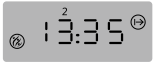
When the system is powered on, press " ⏣ " till entering clock hour setting. LCD will display the hour value with flash. Then press " AUX " and " ✲ " to adjust the hour value.

When the system is powered on, press " ⏣ " till entering clock minute setting. LCD will display minute value with flash. The press " AUX " and " ✲ " to adjust the minute value.

Timing heating time period setting

timing heating time period 1
starting time setting interface

timing heating time period 1
ending time setting interface



timing heating time period 2
starting time setting interface

timing heating time period 2
ending time setting interface

"1" and "2" in LCD stand for time period 1 and time period 2. "⊖" and "⊖" in LCD stand for the starting and ending time of time period.

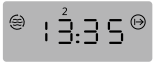
When system is powered on, press " ⏣ " till entering timing heating time period setting interface. The correspondent time value will flash. Press " AUX " and " ✲ " to adjust the time.

The system will automatically store the value after timing heating time period setting.

Timing water cycle time period setting

timing water cycle time period 1
starting time setting interface

timing water cycle time period 1
ending time setting interface



timing water cycle time period 2
starting time setting interface

timing water cycle time period 2
ending time setting interface

"1" and "2" in LCD stand for time period 1 and time period 2. "⊖" and "⊕" in LCD stand for the starting and ending time of time period.

When system is powered on, press " ⚙ " till entering timing water cycle time period setting interface. The correspondent time value will flash. Press " AUX " and " ✳ " to adjust the time.

The system will automatically store the value after timing water cycle time period setting.

III. System malfunction table

malfunction code	malfunction description	Solution
E1	temperature sensor malfunction	Please check temperature sensor and its connection. Replace it with a new one if necessary.
E2	Temperature surpassing the normal range	The system detects an over high temperature on the temperature sensor. This will happen when there is no water or water flow is too small inside the heating pipe and the heating function is started. Please ensure there is water inside the SPA. If the error happens frequently in several days, please contact manufacture or distributor for technical help. If the temperature detected by temperature sensor is too low, please pay attention to freezing protection.
E4	Thermostat disconnection	Thermostat disconnection indicates an over high temperature on the heating pipe. When heating is started, this error may happen when there is no water or water flow is too small inside the heating pipe. Please ensure there is water inside the SPA. If this error happens frequently in several days, please contact manufacture or distributor for technical help.
E5	Control panel and box communication malfunction	Please check the connection between the control panel and control box. Replacing them with new ones if necessary.