

USER MANUAL OF YS-20135 SYSTEM

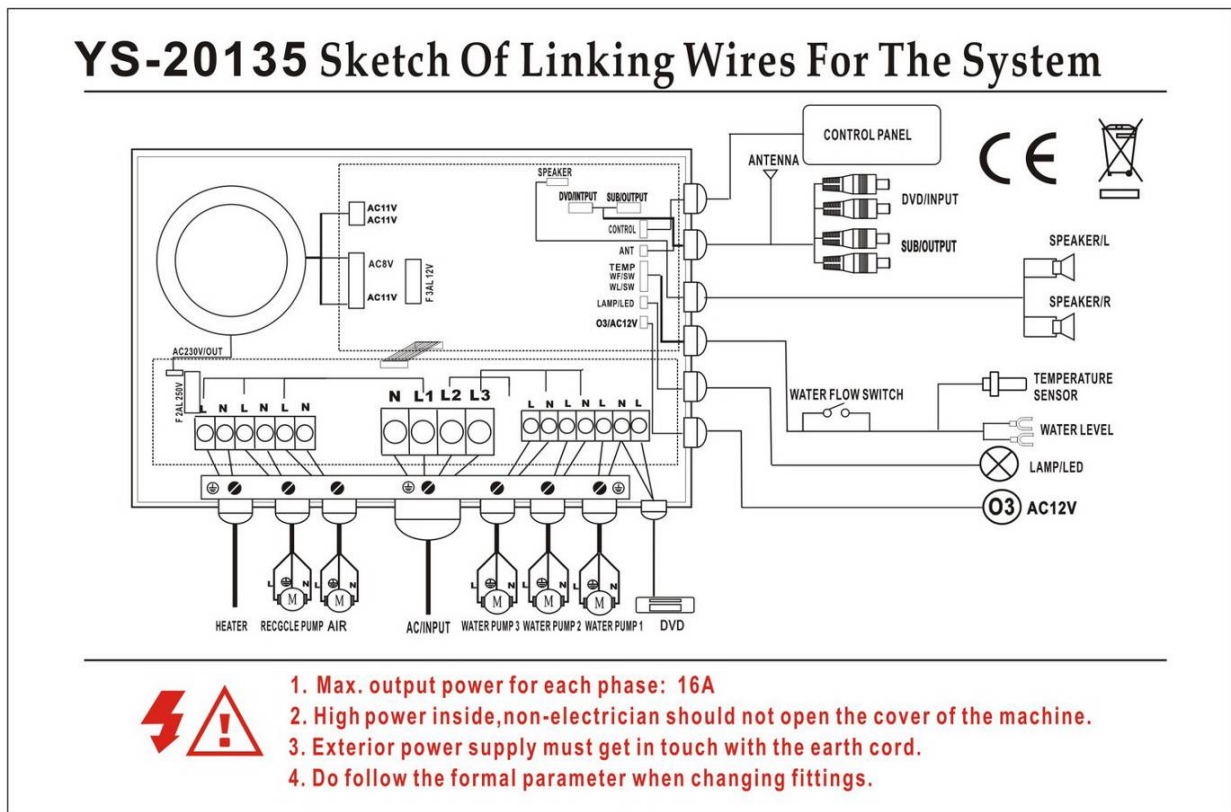
Carefully read all of the instructions before enjoying the spa.

WARNING: Operating the system without water will cause severe damage.

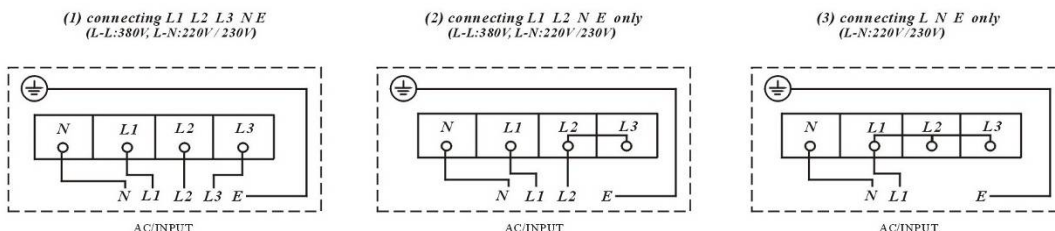
WARNING: SHOCK HAZARD! No user serviceable parts. Do not attempt to service this control. Contact your dealer or service center for assistance. Follow all users' manual power connection instructions. Installation must be performed by a certified licensed electrician and all grounding connections must be properly installed.

I. Installation:

- 1) Please open the tub skirt according to instruction on it, connect the power supply correctly. The power supply should be: 220V-240V~50HZ/60HZ, the wires serving as equipotential bonding conductors shall have a cross sectional area not less than 5×6mm². The protection system should be based on a residual current device (RCD). Be sure that the earth cable connection is correctly made. The circuit diagram of hot tub is shown as following (Fig 1).



Wiring diagram of control box



(Fig 1)







USER MANUAL OF YS-20135 SYSTEM

- 2) Before infuse water into hot tub for using, please check the valve for each pipeline. The hot tub's drain valve must be in normal close while valves for other pipeline must be in normal open. After confirm everything is ok, fill the spa with cold water from the filter area to avoid any air block. Do not overfill as the spa's water level will rise as each person enters the spa. Always keep the spa water level above the jet openings.

II. Operation instruction:




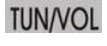


(Fig 2)



- **Power key):** Connect power supply to the spa, press  key, all the control systems are ready to run (indicator light is on all the time), and the circulation and Ozone disinfection system go into working automatically (The display will show the symbols of circulation and Ozone). Each time to turn on the spa, the control system will check the water flow of heater for 10 seconds and show “HO” on display during that time. If water flow is ok, “HO” will disappear and the display will show actual water temperature. If the water temperature does not reach the pre-set one, the heating system will start to work (the heating symbol will appear on the display).
- **TEMP key (need to be used together with +/- key):** Press  key, the panel will display the water temperature set last time and keep flashing: Press “+” key to adjust temperature to highest at 42°C; press “-” key to adjust temperature to lowest at 10°C. It will automatically store and return to show the current water temperature after flashing 3 seconds.
- **PUMP key:** press  (PUMP 1) key, its symbol will show on the panel, pump1 will be activated; press  (PUMP 2) key, its symbol will show on the panel, pump2 will be activated (PUMP 2 is optional for some models); press  (PUMP 3) key, its symbol will show on the panel, pump3 will be activated (PUMP 3 is optional for some models); press  (AIR BLOWER) key, its symbol will show on the panel, air blower will be activated (air blower is optional for some models). Each pump will automatically turn off when it works for 60 minutes.

USER MANUAL OF YS-20135 SYSTEM



REMARK: There are some air valves on the topside of spas near the seats. They are to control the strength of hydro-massage in the seats respectively.

- **O3 key (Ozone):** Ozone generator run together with circulation pump, namely it can not be activated if circulation pump isn't turned on. When circulation pump is on, press  key can turn on or off the Ozone disinfection system.
- **LAMP key:** When the control systems are ready to work, first press  key, its symbol will show on the panel and the underwater lights will be on. The colors of LED lights will change automatically (15 seconds as a cycle); second press, the color will be fixed on a certain color; press for the third time to shut it off. The LED lamp will automatically turn off when it works for 4 hours.
- **FM/AV key (Radio/TV/DVD Control):** When the control systems are ready to work, first press  key, it will go into Radio function, and the panel shows radio channel set last time (under Radio status, press +/- key to select pre-stored radio station); second press, it will go into TV function (this function is optional), the panel shows TV symbol; third press, it will go into DVD function (this function is optional), the panel shows symbols of DVD at the same time (Under DVD status, press +/- key to adjust the volume of DVD); press for the fourth time, the panel will show the detected water temperature.
- **TUN/VOL key (need to be used together with +/- key):** Under Radio status, first press  key, the panel will show 2-digit volume, press +/- can adjust volume upwards or downwards (the panel will automatically show radio frequency when stop adjusting for 3 seconds). Second press , the current frequency will flash, press +/- key to adjust the current frequency, it will store automatically after flashing 3 seconds. Third press, the panel will show radio channel, press +/- key to select pre-stored radio station (the panel will automatically show previous radio frequency when stop adjusting for 3 seconds). Long press for 5 seconds, the system will automatically search radio frequency again and store the searched frequency at different channel sequentially.
- **Heating system:** After the control systems are ready to work, the heater will start working 10 seconds after the circulation pump is activated unless the temperature sensor detect that the set temperature is lower than the detected one. When the water temperature reach set temperature, the heater will stop working automatically. When the water temperature is under 2°C of the preset one, the heater will be activated to work again.







REMARK:



 - The heating system must work together with circulation pump, namely the heating system can not be activated if the circulation is off.
 - The heater will not be activated to work if there is not enough water flow trans-fluxing it and show HO on the display.
- **Energy-saving circulation mode (the factory-setting for the spa is this mode) :** First time to turn the spa, it will go into energy-saving circulation mode automatically (the indicator light on  key will show **GREEN**). Long press  key for 3 seconds until the indicator light on it show **GREEN** to enter

USER MANUAL OF YS-20135 SYSTEM


energy-saving circulation mode from 24-hours circulation mode. In this circulation mode, the circulation pump will **work for 60 minutes** (the green indicator light on  will be on and the display will show “ON” and detected water temperature alternately) and then **stop for 180 minutes** (the green indicator light on  will be on and the display will show “OFF” and detected water temperature alternately). It will repeat the cycle continuously unless you switch to 24-hours circulation mode.

REMARK:

-  and  keys are non-function keys. They are just for indication.
- When enters into energy-saving circulation mode mode:
 - a) The preset temperature is lower than the actual water temperature: only the filtration pump works while the heater does not work.
 - b) The preset temperature is higher than the actual water temperature: when under the state of “OFF”, if the water temperature has not reached the preset one, the filtration pump and heater will continue to work until the water temperature reaches the preset one. The Ozone will automatically work together with the filtration pump and heater in automatic mode.
- Each time when turn on the spa, the system will go into the mode set last time. Long press  and  key (the indicator will show **GREEN**) to switch between energy-saving circulation mode and 24-hours circulation mode.
- **24-hours circulation mode:** Turn on the spa, long press  key for 3 seconds to enter 24-hours circulation mode (the indicator light on  key will show **GREEN**). In this mode, the circulation pump will be running for 24 hours unless you turn off the spa.

REMARK: When enjoy the massage functions, in order to ensure the cleanness of water in the spa, please switch the spa into 24-hours circulation mode.
- **Water-lacking protection system:** There are two water level sensors on the shell of the spa. When the water level is lower than the sensors, all symbols on display will keep flashing and all equipments like pumps and heater can not be activated. In this situation, more water needs to be added into the tub until the water level is over the sensors.
- **Total power control system (interlock):** Long press  key again for 20 seconds, the system can be converted between interlock mode and non-interlock mode (the indicator light on  key shows **BLUE** under interlock mode; while it shows **RED** under non-interlock mode). When it is in interlock mode, the heater will stop when you press any key of pumps and air blower. This feature is to reduce the power needed for the spa so that it can match the power limit of some countries. In non-interlocked mode, the heater will keep running when the other pumps are activated unless the water temperature reaches the set temperature.

USER MANUAL OF YS-20135 SYSTEM

- **Anti-freezing system:** After power off the spa to standby status (the indicator light on  key flashes), the anti-freezing system will be activated instantly. When the water temperature in the spa drops below 8°C, the circulation pump, heater and air blower will work automatically, Pump1 will automatically start to work in about 85 seconds; and it will stop after working about 85 seconds; then Pump 2 (if equipped) will start to work for about 85 seconds and stop; finally comes for Pump 3 (if equipped) working for about 85 seconds then stops. Pump1, Pump2 and Pump3 will continuously cycle among them. When the detected water temperature reaches 10°C, all the pumps and heater will stop working. When this system is running, the screen background light is on. When the water temperature reaches 10°C, the screen returns to the standby status.
- **Screen saver system:** if stop touch the control panel for more than one minute, the background lights of screen will be turned off automatically. Press any key to quit screen saver.

II. Trouble shooting:

Description of trouble	Analysis	Solution
OH	Over-heated. The water temperature inside the tub is more than 43 Celsius degrees. All equipments stop working until the water temperature drop to 40 Celsius degrees.	Do not enter into the tub. Move the insulation cover and open the skirt panels to release the heat as quickly as possible. When the water temperature drop to 40 Celsius degrees, the system will be recovered. If the spa doesn't reset, contact your local dealer or service center.
HO	No enough water flow for heater or the water pressure switch of heater is broken. The heater can not be activated and the display can not show detected water temperature in this situation.	Clean the paper filters and then restart the system. If the problem persists, contact your local dealer or service center.
E0	No temperature sensor or it is disconnected. The heater can not be activated in this situation.	Check if the temperature sensor is connected or the plug is loose. If the problem persists, contact your local dealer or service center.
E1	The temperature sensor is short-circuited.	Replace the temperature sensor. If the problem persists, contact your local dealer or service center.
All symbols of equipments on display keep flashing	No enough water in the tub. Water level is lower then water level sensors.	Add more water to the tub until the water level is over the water level sensors. If the problem persists, contact your local dealer or service center.
All equipments are turned on automatically and can not be turned off	Water temperature is lower than 8 Celsius degrees and the anti-freezing system is working.	No operation is needed for this situation. You can also turn on the spa to turn off all the running massage pumps and air blower.