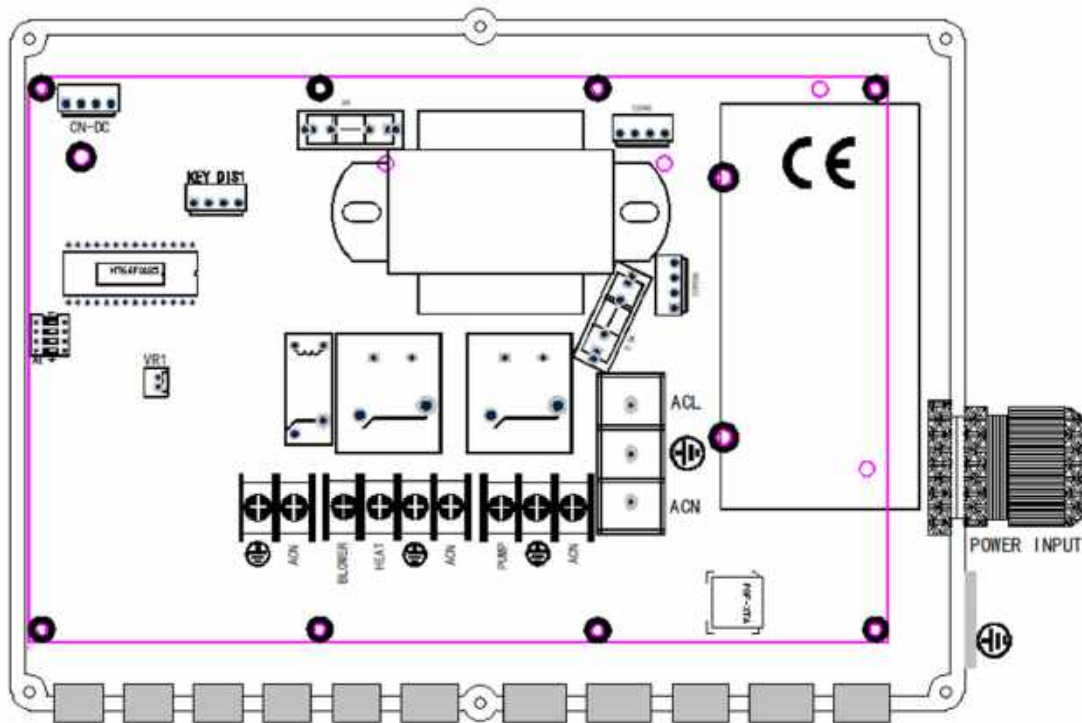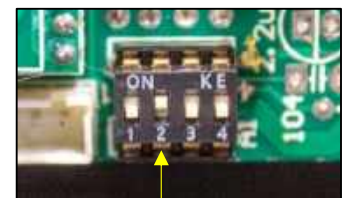# SD-6200 User Guide

## Explanation of picture:



- 230VAC/250W water pump (Terminal: PUMP);
- 230VAC/3KW heater (Terminal: HEAT);
- 230VAC/400W blower (Terminal: BLOWER);
- 12VAC or 12VDC/10W LED light (Socket: BTT);
- Temperature Sensor (Socket: VR1);
- DIP switch (Switch: DIP)

| Spa Control System | |
| --- | --- |
| Model: | SD6200 |
| Working Rating: | AC 220-240V / 50Hz, 25A, Class I, IPX5 |
| Maximum Load: | 25.0A |
| Degree of Protection | IPX5 |
| Electric Shock Protection: | Class 1 |
| Series no: | |

**Maximum output load index**
Heater: 3KW  Water pump: 750W  Blower: 700W
LED Light: 10W /12VAC or 10W/12VDC

**NOTE:** The UV-C light (230VAC/100W) can be connected in parallel with the water pump and used for sterilization.

**OVERVIEW OF FEATURES**
When delivered, the DIP switch is in Factory Configuration which is 1, 3 and 4 OFF and 2 in the ON position. Then the system works as described here in the overview.



- When the power is switched on the water pump starts and the water is heated to the temperature that was last set, or for a maximum of 6 hours. Upon delivery the default temperature is 37°.
- When the temperature or time limit has been reached the pump and heater stops. They will remain off for 6 hours. Thereafter the pump and filtration will run for 2 hours.
- After 2 hours, the system will switch off, the water pump and heater will remain off for 6 hours. Thereafter the same time cycle is repeated > 2 hours ON and 6 hours OFF. **See also the next paragraph labeled NOTE!**
- NOTE: Read the "**Temperature priority mode**" section to let the system control the circulation pump and heater according to the set water temperature.

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**NOTE!**

- It is also possible to start the water pump for filtration and heating manually according to your choice. See point **"Start water pump / heating according to your choice:"**
- When the main power is turned off / on again, the "2 hours ON and 6 hours OFF" time cycle will be activated on bootup. If a power failure occurs, the system automatically starts when the power is turned back on and follows "2 hours ON and 6 hours OFF".
- If the power is turned off and on again, the system will automatically enter "Heating mode for cold water" if the water is more than 3 - 4 degrees colder than the set temperature. To manually activate "Heating mode for cold water" without resetting the power, see point "Heating mode for cold water"
- The system has a built-in WiFi module and control of the water temperature can be done either manually or via the app. See **"Temperature control"** and "<u>**The control of the system is done either manually or through WIFI**</u>"
- The system runs **"Automatic cleaning function"** every twelve hours, air pump for bubble is switched off 10 minutes after start and LED lighting (accessory) after 120 minutes.

## Functions

### Operation of the heater

The key (≋) is used to set the temperature. In normal operating mode, the set water temperature is reached during the time cycles. Filtration then also takes place and also heating if the temperature is lower than 2 degrees below the set point.

If the water is to be heated from a low temperature (for example after a water change), point **Heating mode for cold water:** must be followed.

When the water temperature is 2 °C lower than the set temperature the water pump is running and the heater will work automatically. Then the heating indicator will be on and turn to red. After the set water temperature is reached, the heat indicator will light up and turn to green.  If the set water temperature has not been reached during the time cycle and the pump is stopping, the heater will turn off and the indicator light for heating (≋) will turn red and flash. If the power is turned off and on again, the system will return to the settings that were in effect before the power was turned off.

**NOTE: When the heater is working, it will turn off for 30 seconds every 40 minutes to prevent the internal components from overheating due to continuous heating.**

### Temperature Control (10-40℃)

Press the (≋) button and hold down for 3 seconds to enter temperature configuration mode, the target temperature will flash on the screen. Before the temperature stops flashing, press the (≋) key to increase the target temperature, or press the (※) key to decrease the target temperature. When no key is pressed within 6 seconds, the system will exit and save the set target temperature, and then display current real temperature.

**Heating mode for cold water (manual activation):**

A) Press the ⟳ key and hold down for 5 seconds to enter heating mode for cold water, the water pump indicator will flash for 5 seconds and then remain lit, the water pump will then run for 6 hours or until the temperature reaches its target temperature, and then stop.

B) When the water pump is in heating mode for cold water, short press the ⟳ key will not respond, only long press ⟳ for 5 seconds to exit heating mode for cold water and shut down the pump.

## Water pump and heating functions

**Normal filtration/heating mode:**

When the control system is energized the water pump will run automatically for 2 hours and then stop for 6 hours and work like this in cycles. Filtration also takes place at these times, heating as well if the temperature is more than 2 degrees below the target temperature.

**Start water pump / heating according to your choice:**

When the pump is stopped, press the ⟳ button **3 times in 4 seconds**, the pump will run for 2 hours and then stop for 6 hours and work for 2 hours and will repeat like this indefinitely.

When the pump is running, press the ⟳ button **3 times in 4 seconds**, the pump will stop for 6 hours and then run for 2 hours and work like this in cycles. Heating will start as well if the temperature is more than 2 degrees below the target temperature.

**Blower operation**

The ⊛ key controls the the air pump on / off. The air blower will automatically turn off after running 10 minutes.

**LED lighting**

The ☀ key is used for controlling the light on/off. The light will automatically turn off after working for 120 minutes.

1. Press the ☀ key at the first time, LED light will be on and changing color (The color will be changed every 5s);
2. Press the ☀ key at the second time, LED light stop changing color;
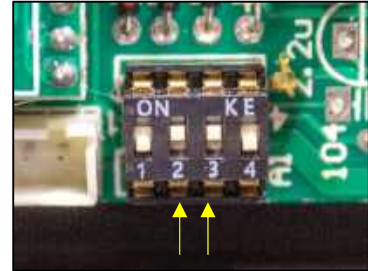3. Pressing the ☀ key at the third time will turn off the LED light.

**Automatic cleaning function**

The blower and water pump will automatically run every 12 hours starting after switching on the main power. The blower runs for 60 seconds first and then the water pump also runs for 60 seconds. **The purpose of this function is to mix and aerate the water.**


**Temperature priority mode**

A) When DIP switch 2, 3 is **ON**, the system enters temperature priority mode which means that the temperature controls the water pump. **Note that this method may involve higher energy consumption.**

B) In the temperature priority mode the heating function is on, which means that when the temperature is 2 °C below the target temperature, the water pump and heater starts and runs until the temperature reaches the target temperature, at this time the pump button ⬡ is disabled, shutting down the pump can only be done by turning off the heating function.

C) **In temperature** priority **mode, Heating mode for cold water is disabled.**


<u>**The control of the system is done either manually or through WIFI**</u>
**Manual control is described earlier in the manual.**

**Control of the WIFI module:**
1. Go to the App Store or Google Play Store and download the app eWeLink
2. Create an account on eWeLink, follow the instructions there and log in.
**Then follow the steps below:**

**Enter Network configuration mode:** Press the ⬡ key for 10 seconds (Or until the light on the controller flashes), the WIFI module then enters network configuration mode, now you can add the device and give it a name in eWeLink. The network configuration mode automatically exists after adding the device.

**When the installation is done you can:**


A) **Display and configure temperature:** Display the actual water temperature and set the desired temperature through the APP interface.

B) **Switch heating function:** Turn on/off the heating function through APP interface.

C) Please note that all other functions of the APP are disabled.

**System Malfunction Warning**
1. When the temperature exceeds 45 degrees, the system will display E1 on the control panel.

2. When the temperature sensor is open, it will display E2. (Note: The heater will automatically shut off if there is a sensor failure).