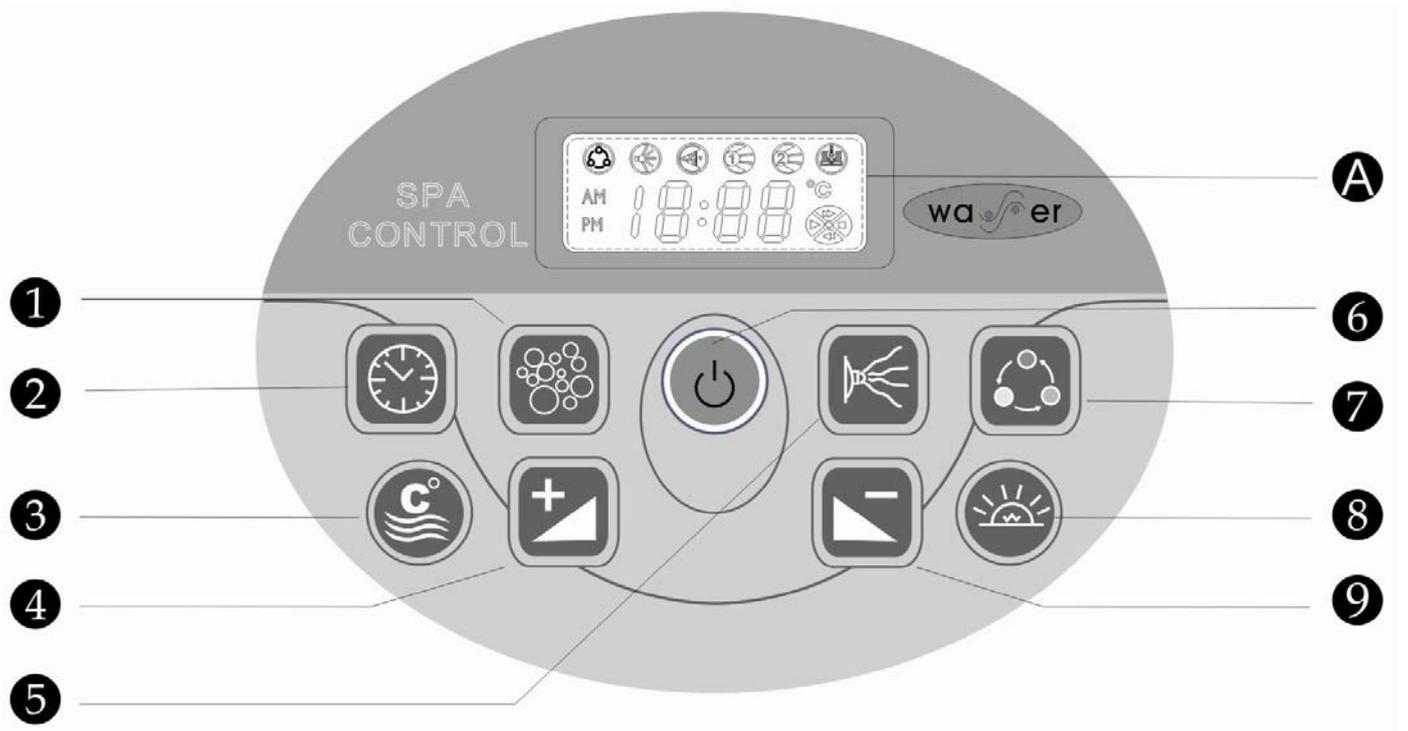


TM42-A1 Control System



1. Blower

2. Real time clock

3. Heater

4. Temp/Time setting Up

5. Pump 1 and 2

6. Power on/off

7. Colour changer

8. Light

9. Temp/Time setting Down

A. LCD display

Instructions for TM42-A1 control system

Warning

- A. Installation is only to be made by qualified persons.
- B. Read the instructions carefully before beginning the installation.
- C. We are not responsible if the product does not work or is damaged when the instructions are not followed during installation.
- D. Ensure that the system is not damaged during transportation when it is unpacked.

Note!

- A. 1 x16 A should be connected to the control system. Do not connect the power before the installation is complete.
- B. Install a maintenance switch close to the control system for use during maintenance work.
- C. An earth switch must be installed. Check that the earth switch works when the power is connected.

Functional description

1. Power On/Off

A. Power On

The system is activated by pressing the button  on the panel; a background light on the LCD display shows the actual temperature. When the system is activated, all functions can be controlled from the control panel.

B. Power Off

If no buttons are used within one hour, the system will deactivate automatically. The LCD display is then dark. All other functions are locked and can only be activated by pressing . The system can also be switched off by pressing . Heat and Filtration works according to what has been programmed in, and the temperature can be shown by pressing .

2. Heater

The heater is adjusted using the buttons  and  between 5-43 °C. Pressing one of the buttons once will decrease or increase the temperature by one degree. With every new adjustment the °C icon in the display will flash for a few seconds. When the flashing stops, the temperature is adjusted to the new degree. If the temperature sinks 1 °C below the set value, the heater and circulation pump will start. The water temperature will automatically keep to the set value.

3. Pump 1 and 2

The circulation pump is automatically started when heating or filtration is activated. The display then shows the icon for the circulation pump with the addition 1. The pump can also be activated by pressing once at . By pressing twice the pump 2 for massage will be activated if it has been

installed and an icon can be seen on the display with the number 2. Pressing  one more time will stop both pumps. NOTE! Pump 1 will not stop if heating or filtration is activated.

4. Blower (Air pump) 

The bubble system is started by once pressing  and stops automatically after 30 minutes if it is not stopped by pressing the button.

5. Light 

If there is a lamp, it will be activated with the button . The lamp will automatically change colour if such a model is installed. If the lamp is not switched off manually, it will automatically switch off after 30 minutes.

6. Light colour switch 

If the lamp is switched on, it can also be stopped with any colour by pressing the button .

7. Adjustment of the system , , , 

If the power is disconnected and switched on again, or the first time the system is started, the temperature is set at 37 °C and the start- and stop time for filtration between 10.00-12.00 (in the morning 120 minutes). The clock must be set according to local time. See description below.

As described under “Heater” the temperature is set using the buttons  and . These buttons are also used for setting the clock and filtration time. In order to come to the setting mode, the button  is pressed until the time in the LCD display starts to flash. The time is according to the “pm and am” system where **am** stands for the time between 0.00 – 12.00 (night-morning, 00.00-12.00) and **pm** 0.00-12.00 (afternoon-evening, 12.00-24.00). The first icon flashing is the clock and hours that are set using the buttons  and . Pressing  once will take you forward to minutes that are also set using  and . Pressing  once more will take you to the start time for filtration where also hours will appear first; set using  and . Pressing  once more will take you to the start time for filtration where also hours will appear first, set using the buttons  and . Pressing  this button again it will take you to the setting of the minutes which can be adjusted with  and . The stopping time will be set according to the minutes, max. 240, which equals 4 hours. By pressing  and  it decreases or increases the minutes by 10. An automatic function in the program starts a second filtration cycle after 10 hours after the other one has stopped running. It will be running the amount of minutes chosen when doing the set up in the in the beginning. Example: Starting time was at 8am (in the morning) and 120 minutes (=2 hours)

> filtration stops at 10.00 (10 am).The second filtration cycle will start 8.00 pm and will be running 120 minutes or 2 hours.

8. By pressing  once more the abbreviation “SP1” will be shown on the display. If nothing has been set up within 8 seconds the value which has been chosen, applies. NOTE! Being in one of the setting modes longer than 8 seconds the system will reverse automatically and the temperature is shown on the display. To change a setting please keep pressing the button .

NOTE!

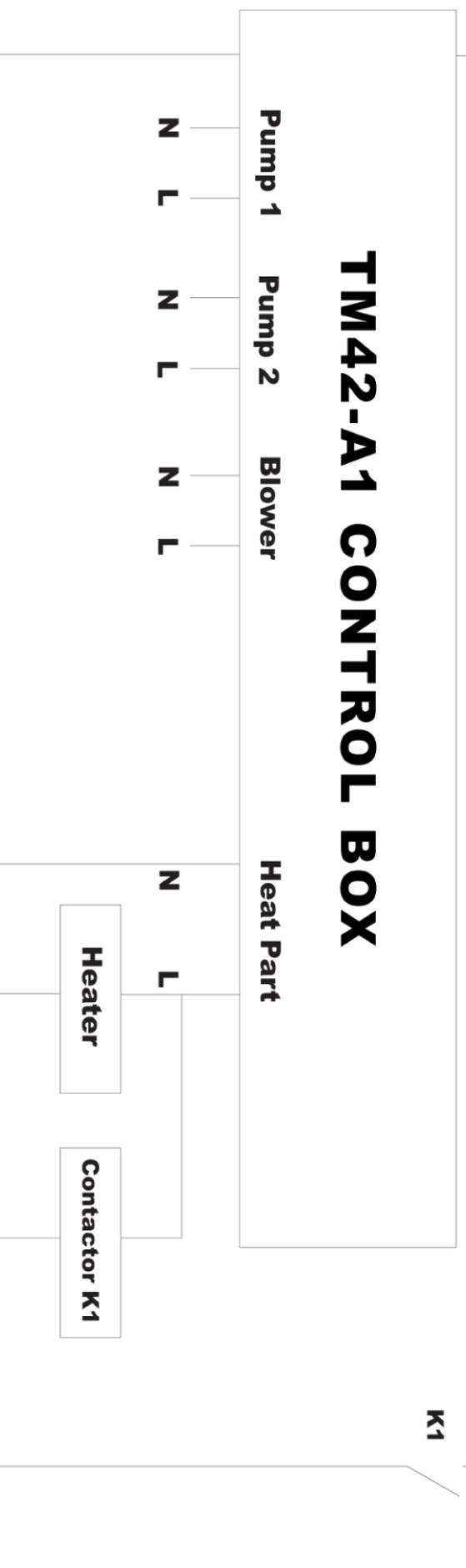
- The water level sensor needs to be activated in order for the system to work. The sensor is installed on the white 50mm hose just beneath the wall through -fitting which is connected to the skimmer. If the water level goes under the water sensor, then the power supply for the control panel will be turned off and all other functions will come to a standstill. No command on the control panel will then work and the symbol for tasks that are trying to restart will be blinking on the display. The most likely cause if this situation occurs is that the level guard has been moved from its place. This can be verified easily by moving it around a bit. If the system then starts, it's a sign that the sensor has not been properly fastened. **ATTENTION!** The water level sensor has a small red light, which will glow when active. The water level sensor can be tested while holding it. The light should glow red when the water sensor is working, meaning that all commands can be re-activated.
- Please note that the the air pump will start and run for a few seconds when the filtration is turned on. Even if the level guard is not active the air pump can still start and stop. After emptying the water (from the tub), the hoses and valves of the airsystem can (and should) be emptied as well.
- In the standard version the electric heater of 1500W, the massage pump (Pump 2) and all other functions connected, the total effect is 3650 W which means the 16 A have been used to its full capacity. Still, it is possible to connect an electric heater with a total of 3000W to the control system. In this case a few more changes in the system are required. Take it up with your dealer or contact us directly if you are unsure about the right heating effect concerning your personal requirements.
- Standard temperature is set at 37°C or 2 hours filtration time, starting 10.00 am. The next filtration cycle starts automatically 10 pm or 10 hours after the first cycle has finished.

Kyttentäkaavio - Kopplingsschema - Wiring Diagram - Elektrisches Verdrahtungsschema

L1

L2

TM42-A1 CONTROL BOX



For TM42-A1 a mains connection of 230V, 1x16A with Ground Fault Current Interrupt (GFCI) is required. A service switch, which is closely installed to the electrical connection is recommended. Heat part can control a 1.5kW heater, for an extra heater, an additional contactor "K1" is then required as well, to which the phase or phases will be connected. The control current for contactor "K1" will be taken from the "Heat Part".

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