

Steamtec Sauna heater

Touch Screen Control System Manual

Please read the manual carefully before installation & use
and keep the manual for further reference

Table of Contents

1. Introduction.....	1
2. Controller Parameters And Dimension.....	2
3. Installations.....	2
3.1 Installations of controller.....	2
3.2 Installations of temp sensor.....	3
3.3 Installations of lamp.....	4
3.4 Installations of power wire.....	4
4. Functions And Operations.....	9
5. Troubleshooting.....	10

1. Introduction

Thank you for choosing TOLO SAUNA touch screen control system for sauna heater. The touch screen control system is consist of touch screen controller, central control box and the sauna room temperature sensor.

2. Controller Parameters And Dimension

Controller model	Controlling time range (mins)	Temperature display range	Temperature controlling range	Dimension (mm)
KSA-Elegance	1~60 or long-term (CH)	1~100℃	60~100℃	90x90x19

Table 1

3. Installations

3.1. Installations of controller

Attention:The controller and central control box **MUST** be installed **OUTSIDE** the sauna room.

The controller should be installed with height around 1.2 m **OUTSIDE** the sauna room but nearby or other place where easy to operate.

Firstly drill a hole with diameter of 16mm on the installation site.

Pull the control wire through the conduit, then connect the control wire to the (4-Pin) plug on circuit board of central control box, refer to figure 1.

Finally the controller panel can be hanging by the screws on the wall.

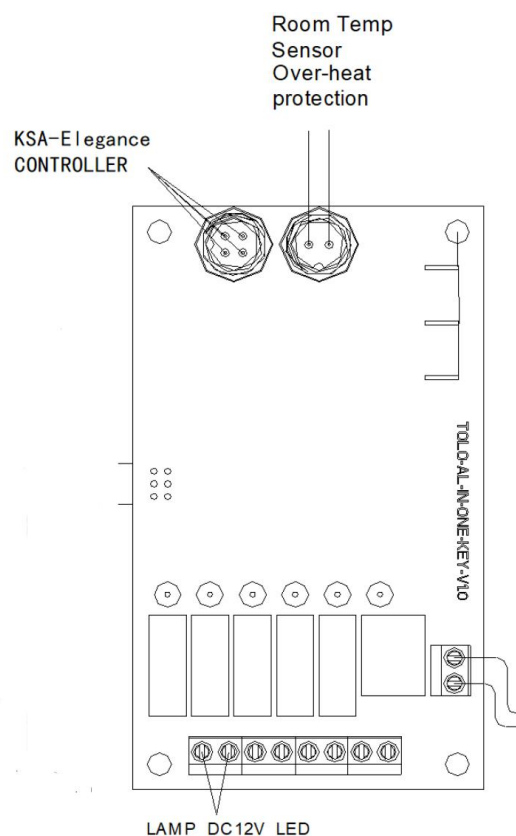


Figure 1 Circuit board

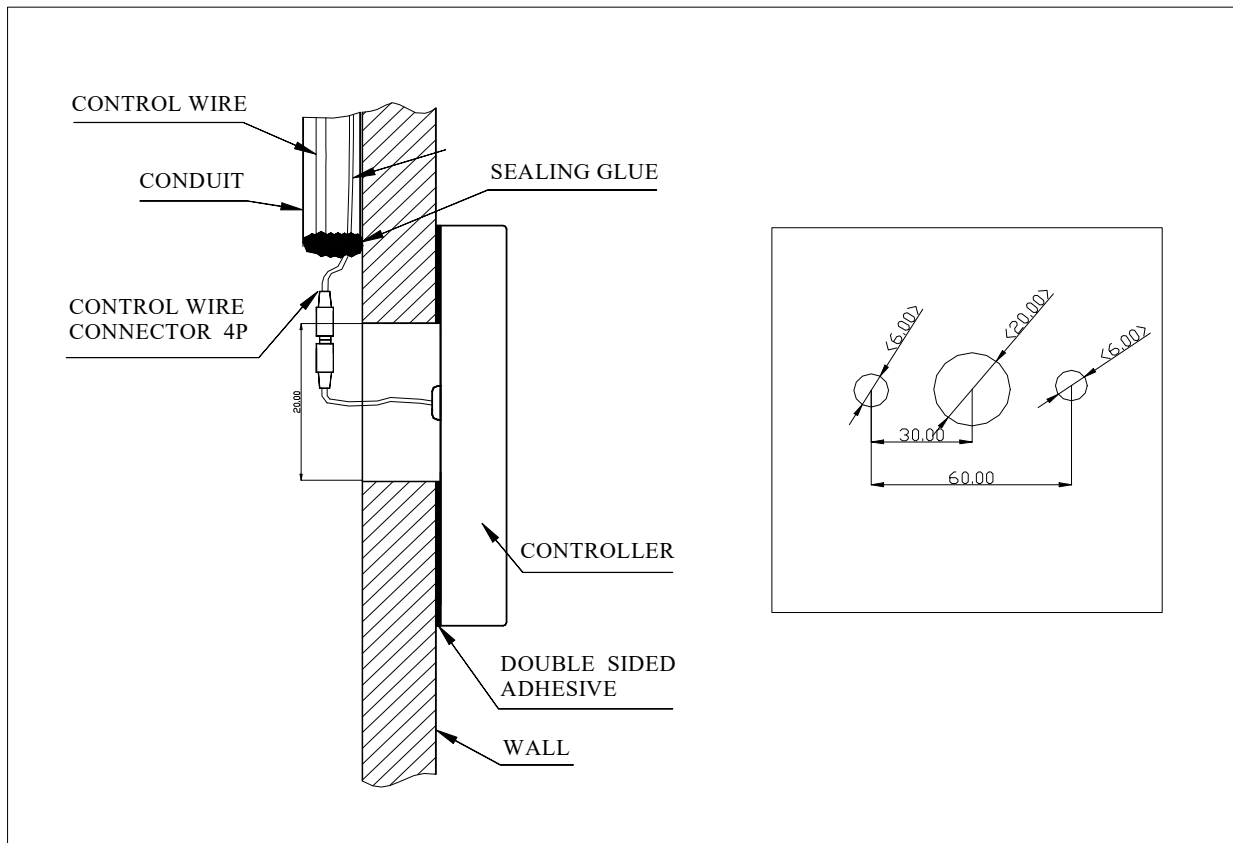
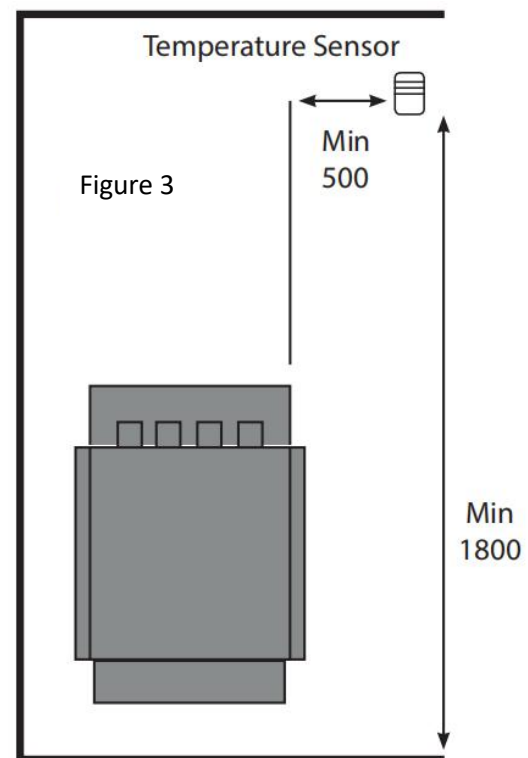


Figure 2 KSA-elegance controller installation

3.2. Installations of temp sensor

Attention: Temperature sensor should be installed in sauna room but not directly above sauna heater, the height must be a minimum of 1800mm from floor. The horizontal distance to sauna heater must exceed 500mm, refer to figure 3.

Please drill a hole (diameter 16mm), and then nail down the sensor in the sauna room, connect the temp sensor wire into the 2 pin plug on circuit board of central control box, see figure 1.



3.3. Installations of lamp

Open the cover of central control box, and connect lamp wire to the plug on circuit board of central control box. (See above figure 1)

Only support DC 12V lamp.

3.4. Installations of power wire

Caution

- All circuits should be installed by licensed electricians and conform to local and national codes. Improper electrical connection can cause fire or electric shock.
- Power supply must be cut off before installation, maintenance and repair. Touch the on/ off button on the controller can NOT cut power from the supply.
- An Residual Current Device (RCD) must be installed in the power supply circuit for safety purpose.
- Choose the cable wire according to sauna heater manual table 1 and the cable wire need to be able to bear extremely high temperature 170°C (It is recommended to use rubber cable wire).

For All TOLO external control sauna heater, power will be supplied into control system first, and the control system will then give power supply to sauna heater.

- (1). First Take off the cover of the central control box, insert the 3-core power wire (single phase, 215-240V, 50/60Hz) or 5-core power wire (three phases 380-415V, 50/60Hz) and connect to the "POWER INPUT" terminal in central control box, see below figure 4-6, so that power will be supplied to control system.

Single phase, 215-240V , 50/60Hz power supply: connect the live wire to the terminal labeled as "L" ; connect the null wire to the terminal labeled as "N" ; and connect the earth wire to the terminal labeled as "⏏".

Three phases, 380-415V , 50/60Hz power supply : connect 3 live wires to the terminal labeled as "L1", "L2" and "L3" respectively; connect the null wire to the terminal labeled as "N"; and connect the earth wire to the terminal labeled as "⏏".

- (2). Second, please connect "CONNECT TO SAUNA HEATER " terminal labeled " L1, L2, L3, N, ⏏ " in central control box (see figure 4-6) to terminal labeled " L1, L2, L3, N, ⏏ " on sauna heater respectively, so that control system can give the power to sauna heater.

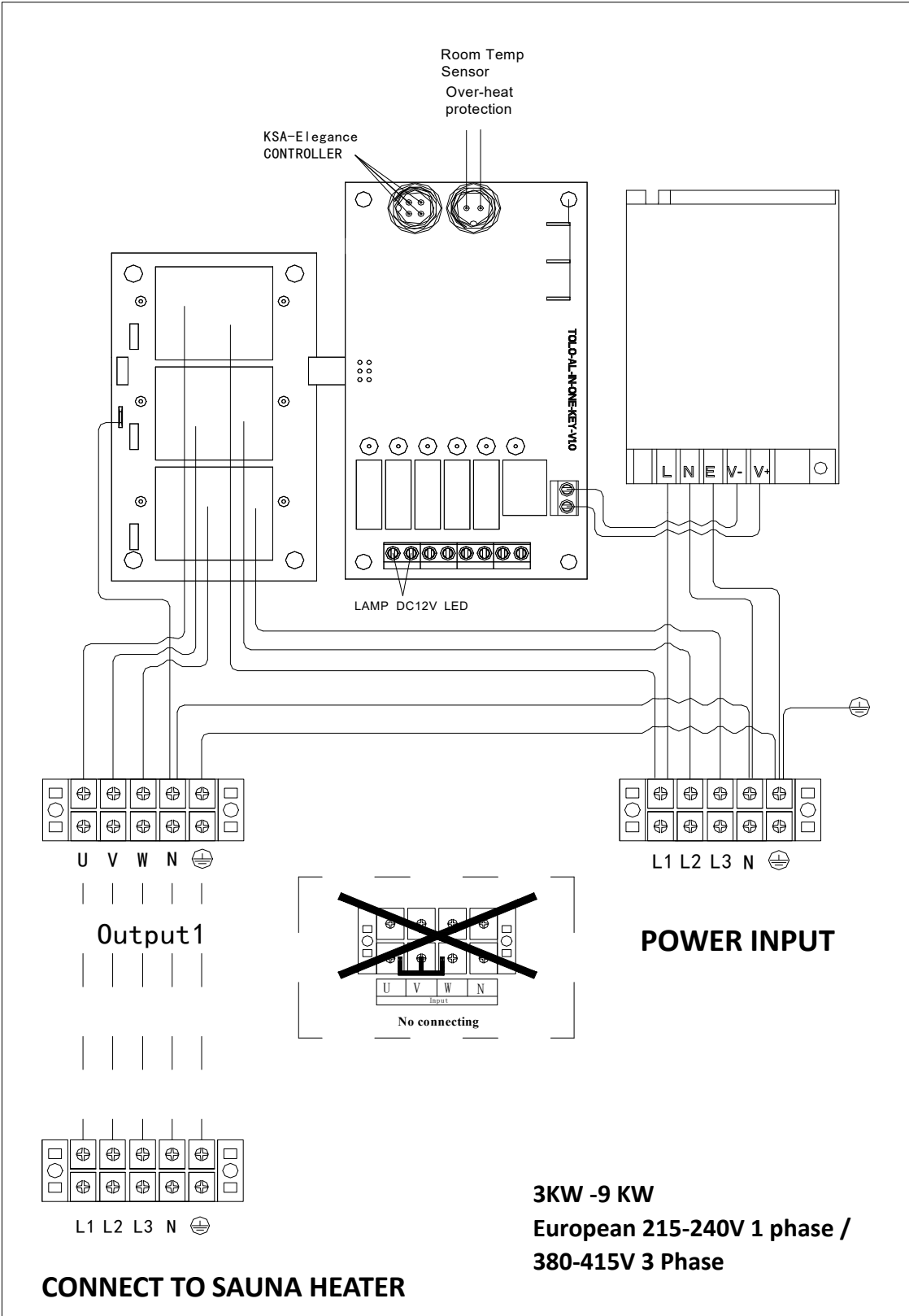


Figure 4

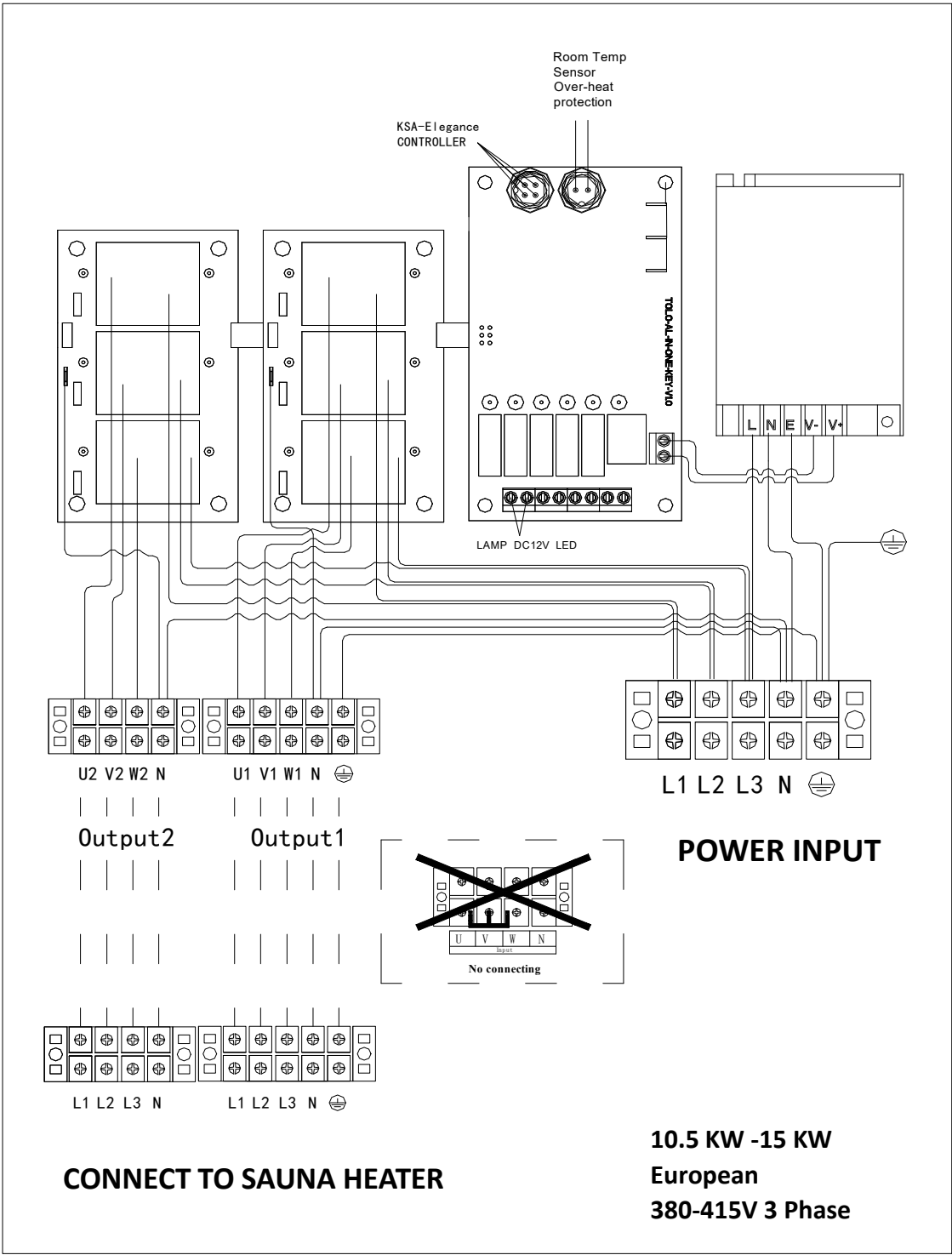


Figure 5

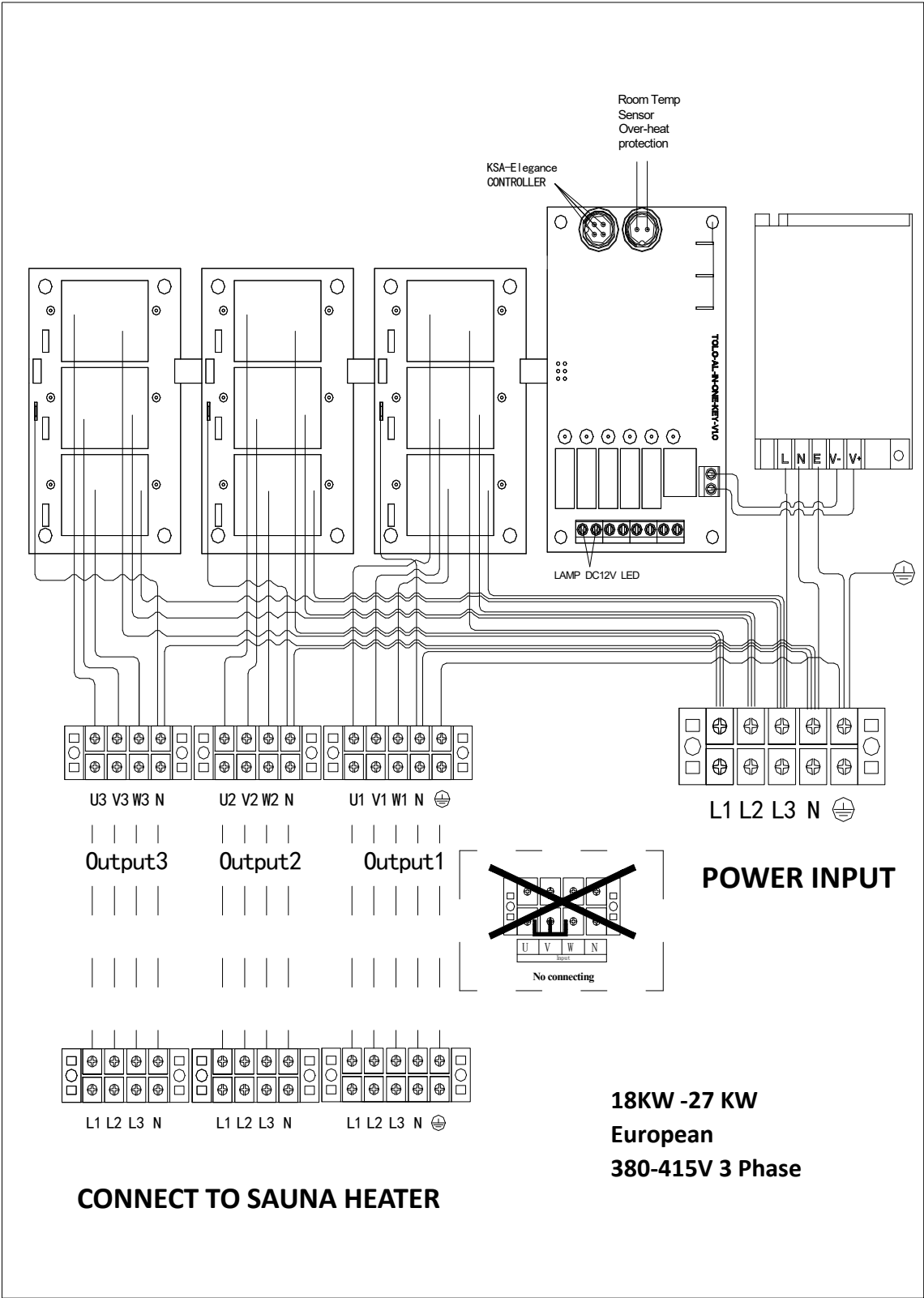


Figure 6

4. Functions And Operations

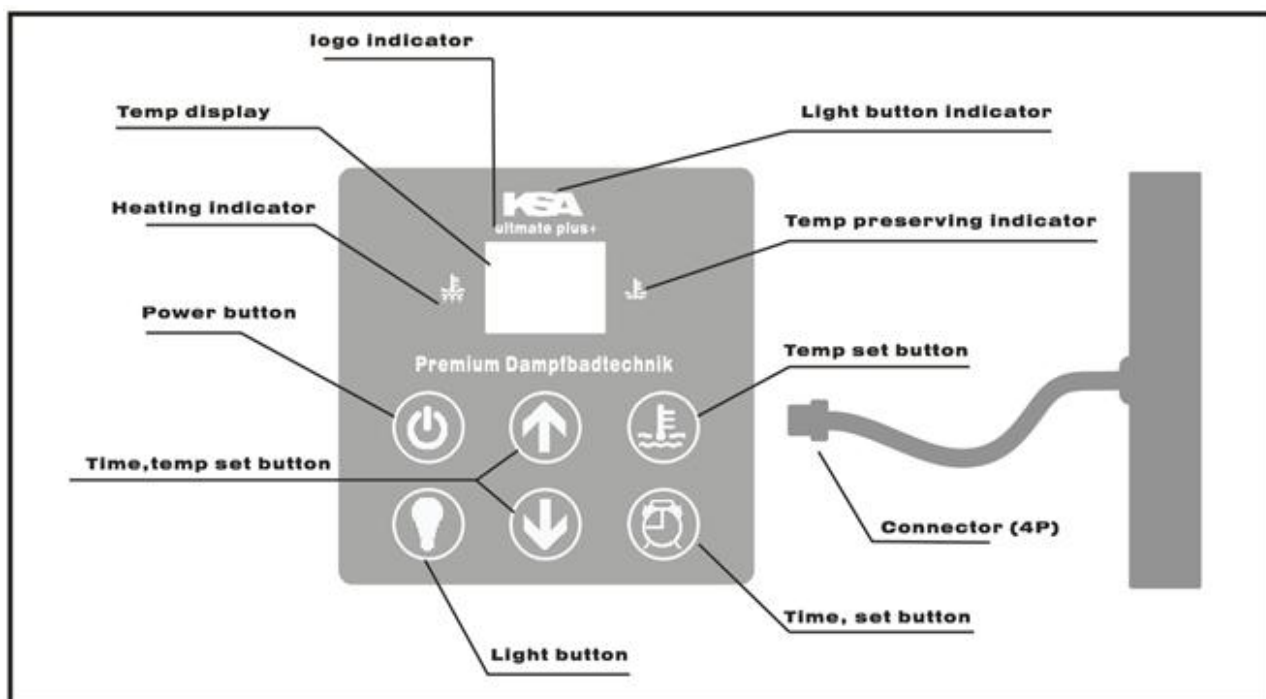


Figure 7 KSA Elegance Controller

i. ON/OFF



Touch  to switch on and off of the whole system.

The system has memory function, it will remember the last time temperature and time setting, however if the system has been powered off / outages, it will lose all its memory and will adapt the default temperature (60 °C) and default time(45 minutes); Automatically off when time runs out or off by touch the ON/OFF button not belong to power off.

However, if the system is shut off automatically when setting time is up, system will remember the previous temperature and time setting.

ii. Temperature set



Touch  to adjust the temperature.

The available temperature setting range is 60~100°C, and the default temperature is 60°C.

The LCD and the white LED on the left will blink and display the last time setting temperature or default temperature. Then touch the “▲” or “▼” button to adjust.

The system has memory function, it will remember the last time temperature setting, however if the system has been powered off, it will lose all its memory and with the default setting, then please reset it again if needed.

iii. Working time set



Touch  to adjust the working time.

The time setting range is from 1-60 minutes or CH, the default working time is 45 minutes.

Touch “▲” or “▼” button to adjust the working time to the value you want, or touch “▲” button until the LCD displays “CH”, after that the system automatically enters long-term working mode. When the system is in long-term mode, the white LED on the right side of the LCD blinks.

iv. Light



This button  is the switch for the external light.

The button can be used as the switch for the external light as long as the system is connected to power supply. The LED is on when the light is turned on.

But support 12V light.

v. ▲ Button

Increase the temperature or time.

vi. ▼ Button

Decrease the temperature or time.

5. Troubleshooting

- Temperature display screen indicate “-L”, which means temperature sensor not connect well (or circuit break), or the temperature is below 6 °C (43°F).
- When there is “-H” indicating on screen, it means short circuit of temperature sensor, or the temperature is higher than 110°C (230°F).

Sauna heater will not work in both above conditions, please check temperature sensor connection or temperature of sauna room, and seek for dealer’s help if needed.