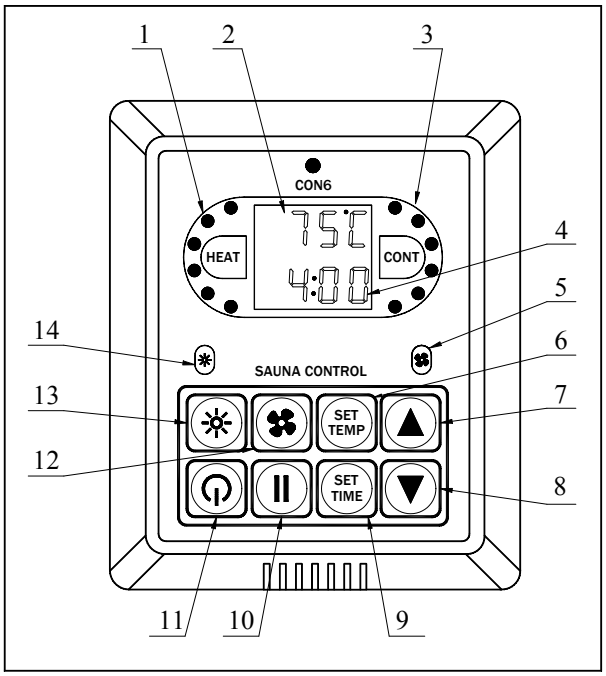
SAUNA CONTROL CON6

FUNCTIONS AND OPERATION



1.Heating indicator 2.Temperature display 3.Output indicator 4.Time display 5.Fan indicator 6. Temperature setting 7.Up 8.Down 9.Time setting 10.Pause/Start 11.Sauna Start/Stop 12.Fan ON/OFF 13.Light ON/OFF 14.Light indicator

Diagram 1 Sauna control panel CON6

1. Display

Temperature: Upper display window, display range**:** 6－115℃(43－239℉).

Setting temperature: Adjustable range 70－105℃(158－221℉). Ex-factory value is 75℃ (167℉).

Time: Maximum preset time is 12 hours (0:00-11:59). Heating time is 0-6 hours (0:01-5:59) or non-stop mode. Time is displayed on the lower display window. Ex-factory value: preset time is 0:00, heating time is 0:45. When set to non-stop mode, displays “CH”.

Heating: Indicated by left side LEDs.

Control heating: Indicated by right side LEDs.

External light： Indicated by “”.

Fan： Indicated by “”.

2. Automatic heating control function

Automatic heating control function compares room temperature with user-set value, and then automatically decides groups of element to turn on. When working time is over, heater stop to heating.

3. Button and function

START/STOP: Press this button to change status of heater. If button pressed in preset mode or preset time is over, heater enters heating mode; if button pressed in heating mode or heating time is over, heater stop to heating.

SET TEMP: Press this button to change temperature setting. The upper screen blinks and displays the current setting, press "△" or "▽" to adjust the setting, then press"SET TEMP" again to confirm; or the system automatically confirm the changes after 3 seconds, upper screen restore to display current room temperature.

SET TIME: Press this button to change preset time setting, the maximum preset time is 12 hours(0:00-11:59). Press "△" to adjust hour value in the range of 0~11 and circle as 0→1→2……11→0→1. Press "▽" to adjust the minute value. Press "SET TIME" again to confirm you setting and then enters the heating-time setting. Press "△" to adjust hour value in the range of 0～5 or non-stop mode (display "CH"). Press "▽" to adjust minute value. In non-stop mode "CH", minute adjusting is unavailable. Press SET TIME to confirm your setting.

PAUSE: Press this button to pause the heater from heating temporarily, and the heating indicators turn off. The pause function will not affect the status of system counting down. Press this button again to restore to original status.

LIGHT CONTROL: This button is used as ON/OFF switch for normal external light (≤60W220VAC). Or when LED control system is installed, then LED changes color automatically upon the first pressing, fixes color upon the second pressing and turns off upon the third pressing..

FAN CONTROL: Press this button to turn on/off fan for ventilation.

and △ TEMPERATURE UNIT SETTING: Hold SET TEMP and △ at the same time for over 3 seconds to switch temperature unit between ℃ and ℉. Release the buttons when the appropriate unit appears on the display. Then temperature will be displayed in the chosen form. Ex-factory value is ℃.

and ILLUMINATION MODEL SETTING: Hold SET TEMP and at the same time for over 3 seconds to switch Illumination model between filament lamp (bULb on the display) and LED system (LEd on the display), release the buttons when you need the "bULb" or "LEd" appears on the display. Ex-factory value is bULb.

△ **ADJUSTING BUTTON**.

▽ **ADJUSTING BUTTON.**

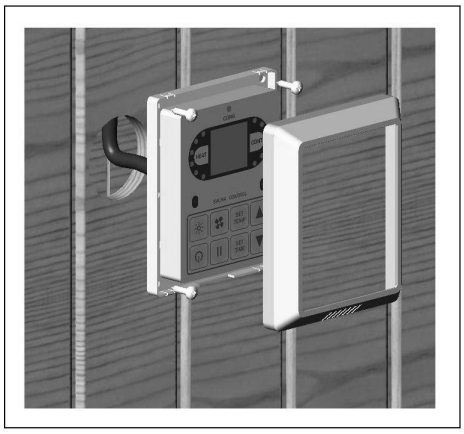
INSTALLATION OF CONTROL PANEL AND TEMPERATURE SENSOR

Install the control panel

It is recommended that the wall-mounted control panel to be installed near the sauna door or other easy access

location outside the sauna room, with 1.2 m height from the floor. Please drill a ⊄ 50 mm hole at the installation spot for CON6. The panel is equipped with water-proof connector and 5 m control wire. Please connect one end of the control wire to the water-proof connector of the panel, and another end to the connector on the control box through the reserved wire hole. Then open the panel cover, fix the panel on wall with screws, and put back the cover, please refer to diagram 2. For on-heater control unit, please fit the control wire into the heater and hang the control on the front panel.

Diagram 2 Install the control panel.



Install the temperature sensor box

Please refer to diagram 4 for recommended locations of the temperature sensor box. The temperature sensor box is equipped with 3 m wire and connector. Please drill a ⊄ 18mm hole, then lead the connecting wire through and connect it to connector J3 on mainboard in the control box of wall-mount digital control unit. Then open the box cover, fix the temperature sensor on wall with screws, and put back the cover, please refer to diagram 3.

Diagram 3 install the temperature sensor box

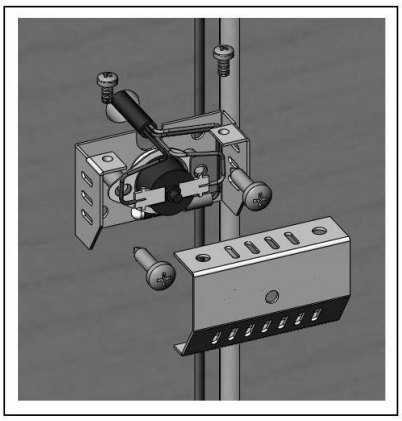
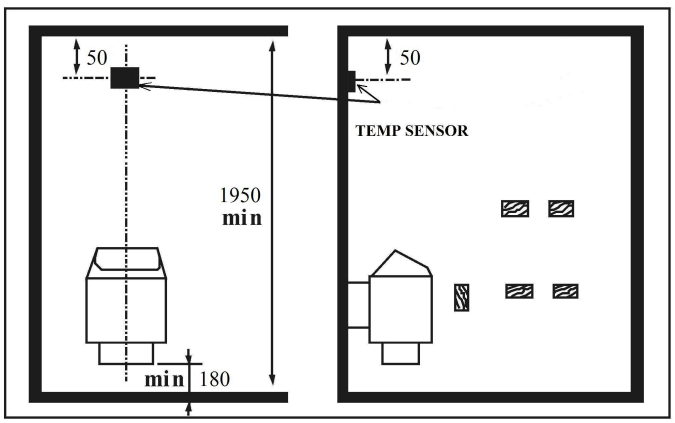


Diagram 4 Recommended locations for temperature sensor box



Install the control box

Only external digital control unit is equipped with control box. The control box should be installed close to heater outside of the sauna room. The installation spot should be well-ventilated and dry, with enough space for wire layout; the environment temperature cannot exceed 60℃; the control box can also be hanged on wall or shelf. Please refer to diagram 5-7 to connect the control box.

Connect to wiring

Please refer to diagram 5-7.

Diagram 5

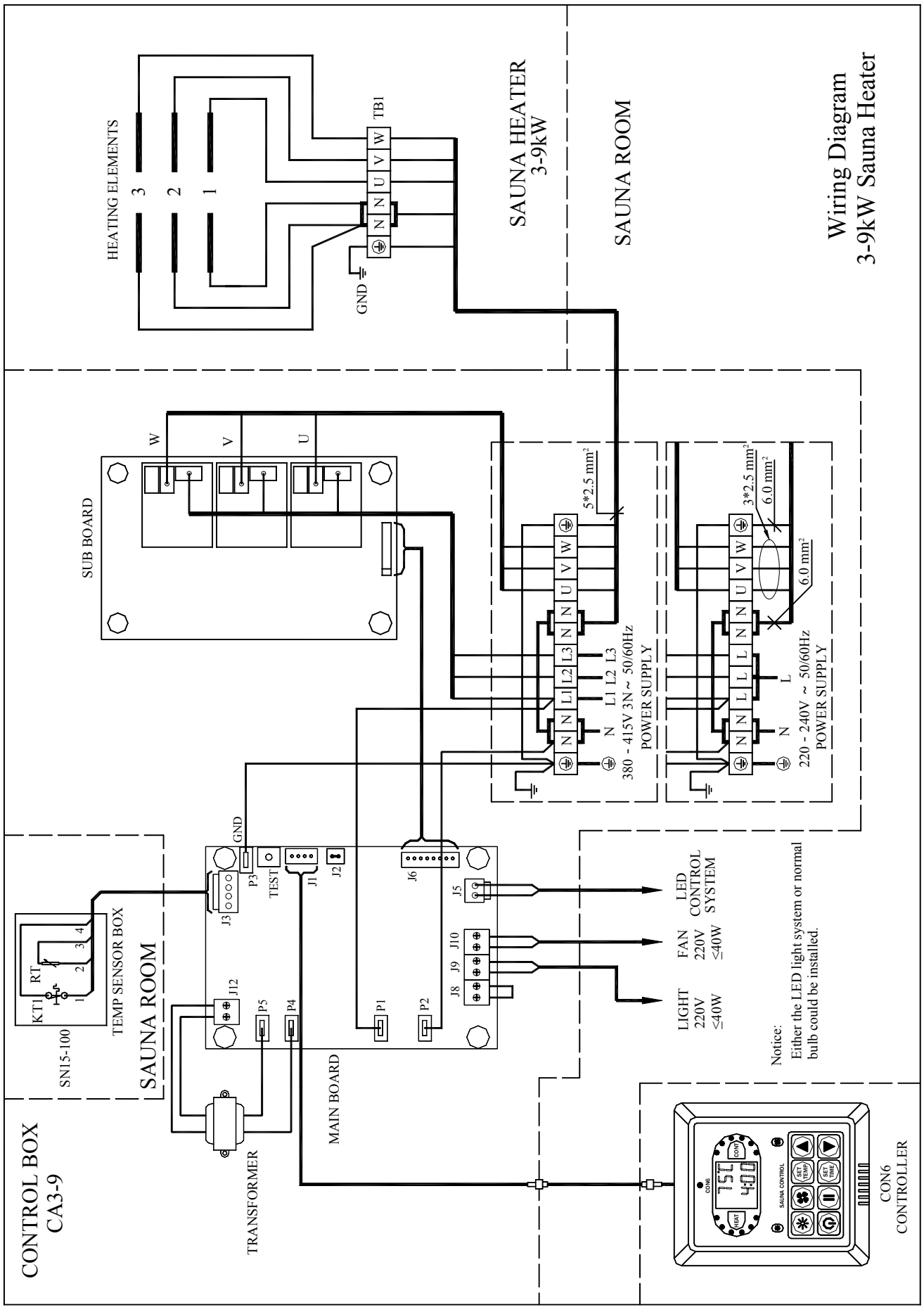


Diagram 6

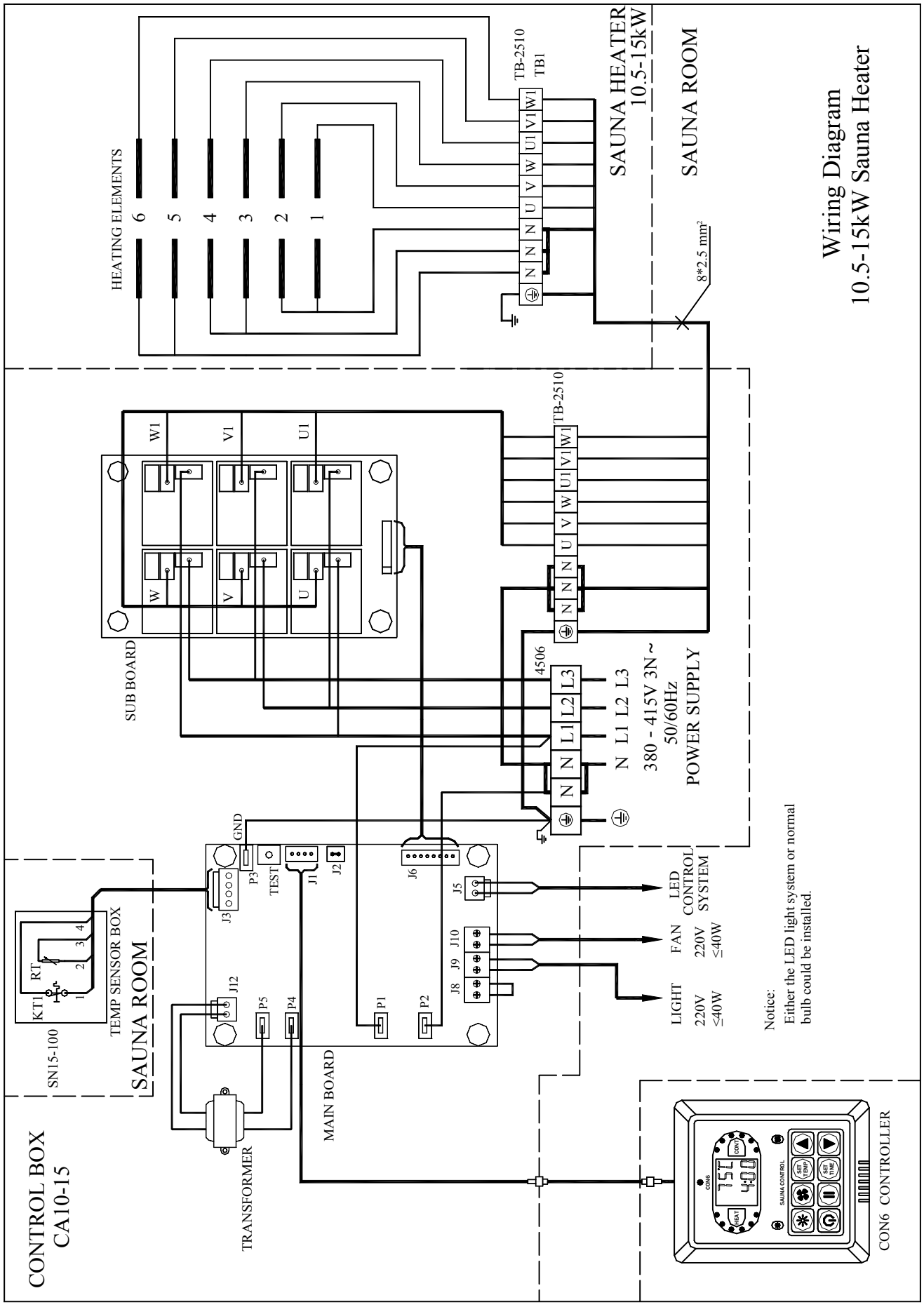
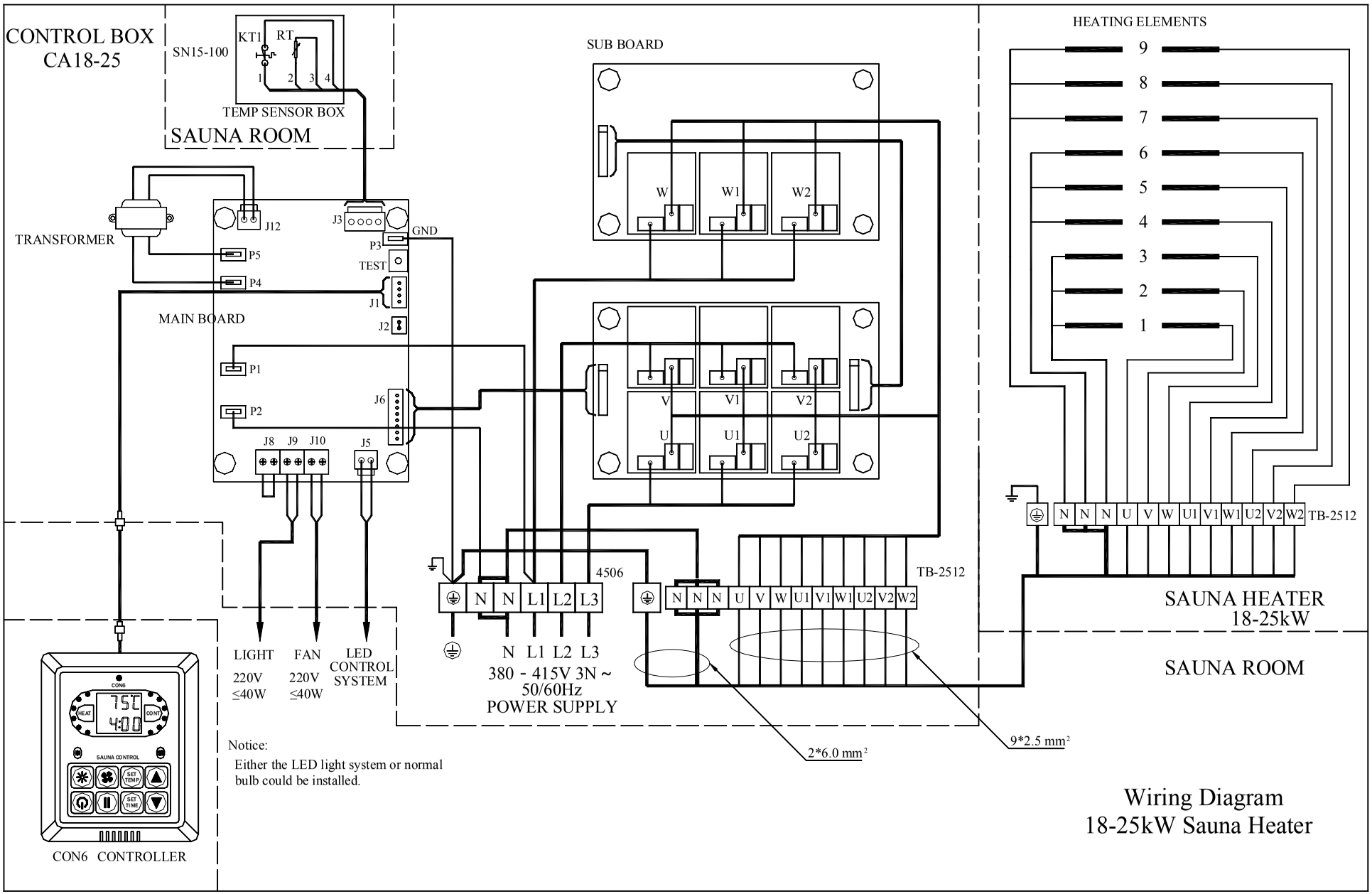

Wiring Diagram
10.5-15kW Sauna Heater
SAUNA HEATER
10.5-15kW
SAUNA ROOM
HEATING ELEMENTS
6
5
4
3
2
1
TB-2510
TB1
N N U V W U1 V1 W1
8*2.5 mm²
SUB BOARD
W1
V1
U1
W
V
U
TB-2510
N N U V W U1 V1 W1
4506
N L1 L2 L3
380 - 415V 3N~
50/60Hz
POWER SUPPLY
N N L1 L2 L3
GND
P3
TEST
J1
J2
J6
J5
J3
J10
J9
J8
J12
P5
P4
P1
P2
MAIN BOARD
LED CONTROL SYSTEM
FAN 220V ≤40W
LIGHT 220V ≤40W
Notice:
Either the LED light system or normal bulb could be installed.
CONTROL BOX
CA10-15
SN15-100
KT1
RT
1
2
3
4
TEMP SENSOR BOX
SAUNA ROOM
TRANSFORMER
CON6 CONTROLLER
SAUNA CONTROL
SET TEMP
SET TIME
HEAT
CONFIG

Diagram 7


CONTROL BOX
CA18-25
SN15-100
KT1
RT
1
2
3
4
TEMP SENSOR BOX
SAUNA ROOM
TRANSFORMER
J12
J3
GND
P3
P5
TEST
P4
J1
J2
MAIN BOARD
P1
P2
J6
J8
J9
J10
J5
SUB BOARD
W
W1
W2
V
V1
V2
U
U1
U2
HEATING ELEMENTS
9
8
7
6
5
4
3
2
1
N
N
N
U
V
W
U1
V1
W1
U2
V2
W2
TB-2512
SAUNA HEATER
18-25kW
SAUNA ROOM
4506
N
N
L1
L2
L3
TB-2512
N L1 L2 L3
380 - 415V 3N ~
50/60Hz
POWER SUPPLY
LIGHT
220V
≤40W
FAN
220V
≤40W
LED
CONTROL
SYSTEM
2*6.0 mm²
9*2.5 mm²
CON6 CONTROLLER
Notice:
Either the LED light system or normal
bulb could be installed.
Wiring Diagram
18-25kW Sauna Heater

INTELLIGENT SELF-DIAGNOSE FUNCTION

Please check the following hint message for quick trouble shooting.

1) **Room temperature is lower than 6℃（43℉）：** displays " **－L** ".

2) **Room temperature exceeds 115℃(239℉)：** Displays" **－H** ". Sauna heater will not heat any more. Restore to normal state automatically after room temperature falls back to normal range.

3) **Communication error：** displays "**EE"**. Bad connection between panel and mainboard，sauna heater will not heat any more. Error message disappears if connections restores. If the system cannot restore automatically after several minutes, please turn off sauna heater and cut off power supply, then check the control cable and connector between control panel and mainboard.

4) **Room temperature error: Room temperature extremely high, exceeds 150℃（302℉）, displays**" **HH1 .** Controlled by temperature limiting thermostat KT1 in the temperature sensor box， sauna heater stop working under this hazard circumstance. The temperature limiting thermostat KT1 can only be manually reset after temperature falls back to normal range, and please restart the heater as well. If the thermostats or heater cannot be restarted, please check temperature limiting thermostat KT1 or heating elements relays.

5) **Temperature sensor error：** displays "**SE".** The temperature sensor RT is either broken or shorted, heater stop working. Error message disappears automatically once temperature sensor is working properly. If the system cannot restore automatically after several minutes, please turn off sauna heater and cut off power supply, then check the cable and connector of the temperature sensor box, or replace sensor box.