

Oceanic

# USER MANUAL



## Foreword

Thank you for choosing to buy our OCS B Series Sauna heater, please take the time to read these instructions before you begin as they contain important information about the installation and maintenance requirements.

OCS B Series Sauna heaters are available in specifications from 9kw to 18kw and are equipped with our OC-SB digital controller & special electrical box. With this not only you can control the temperature and time duration of your sauna bath but also the light and fan of the sauna room, alter the temperature display between Centigrade and Fahrenheit; as well as displaying the sauna heater's 8 status by the 8 LEDs on the controller heating, light, fan, temperature, waiting, working model status etc. The OCB[SAlII] control can also heat two separate heaters in the same room. Every OCS B Series sauna heater is thoroughly tested before leaving the factory.

### IMPORTANT

- Read the manual before installation and operation and then keep it for reference
- This equipment must be installed by competent person
- This equipment must be connected to an all pole isolator of the correct rating
- Disconnect the power supply before exposing electrical connections
- The sauna heater should not be used for any other purpose
- Do not cover the sauna heater or allow contact with flammable materials such as towels – Risk of fire.
- Do not operate the sauna heater without sauna stones
- Do not touch the heater when operational as it is very hot

### SAFETY PRECAUTIONS FOR SAUNA

- Elderly persons, pregnant women, or those suffering heart disease, high blood pressure, diabetes or not in good health are advised to seek medical opinion before using a sauna room;
- Do not smoke in the sauna room;
- Avoid using the sauna room immediately after strenuous exercise;
- Do not use the sauna room when under the influence of alcohol;
- Leave the sauna room at once if you feel sleepy, sick or uncomfortable;
- Ensure there is good ventilation for the sauna room
- We do not recommend this product is used by children under 16 years old unless they are supervised by an adult
- This appliance is not intended for use by persons including children with reduced physical, sensory or mental capabilities or lack of experience unless they have been given supervision or instruction concerning the use by a person responsible for their safety
- Commercial operators should post a notice of these precautions in a prominent position

## Chapter One: Specification

### 1. Parameter and size of sauna heater (chart 1)

Heater model	Input KW	Heating element n×KW	Sauna room volume		Voltage VAC	Phase P	Connecting cable n×mm <sup>2</sup>	Stones kg	Size mm
			min	max					
OCS090B	6.0	6×1.5 (H1-h6)	5	7	230 /400	1/3N	Terminal1: 5×1.5 Terminal2: 5×1.5	40~50	L:480 W:560 H:660
OCS090B	9.0	3×1.5 (H1,H3,H5) 3×2.0 (H2,H4,H6)	9	13	400	3N	Terminal1: 5×1.5 Terminal2: 5×1.5	40~50	
OCS180B	18.0	9×2.0 (H1-H9)	18	32	400	3N	Terminal1: 5×4.0 Terminal2: 5×2.5	80~90	L:480 W:560 H:660

### 2. Parameter and size of OC-SB Controller and OCS B Control Box (chart 2)

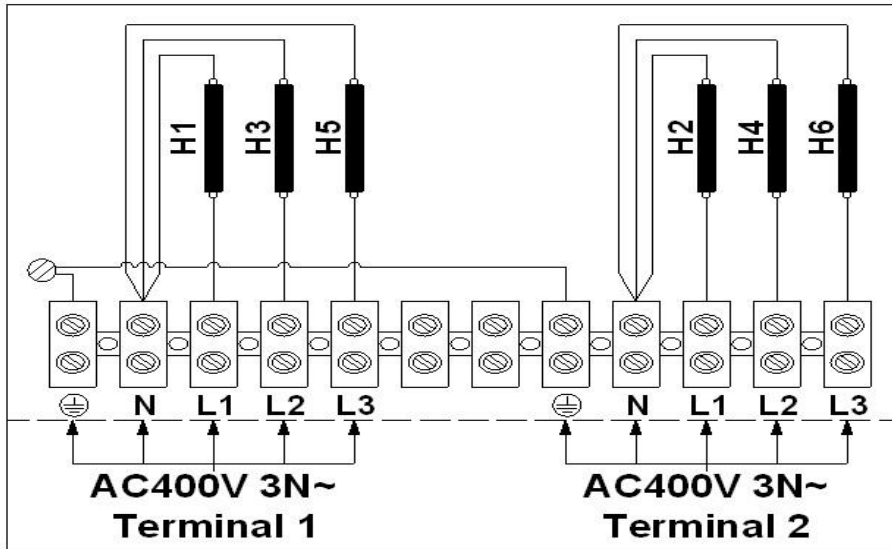
Model	Input	Output	Load power	Size (mm)		
	3N~	3N~	(Kw)	L	W	H
Control box	400v	400v	9.0~20.1	310	260	70
OC-SB	Voltage:DC5V		9.0~20.1	150	92	22

### 3. Parameter and size of temperature sensor (chart 3)

Model	Detected scope		Cut off on high temperature		Size (mm)		
	°C	°F	°C	°F	L	W	H
OC-S	0~110	32~230	120	248	76	42	27

4. Circuit Diagram for sauna heater and control Box

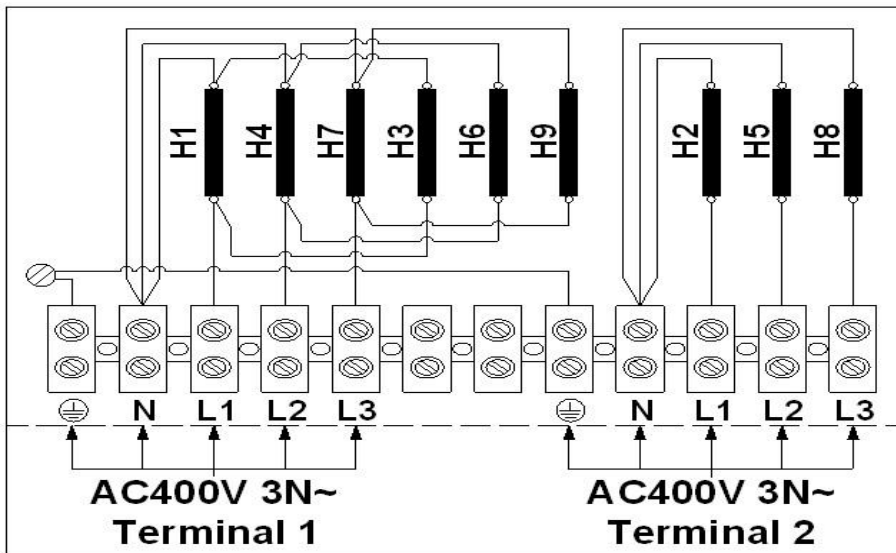
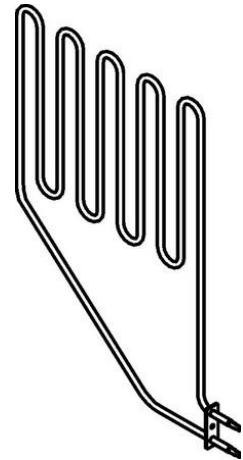
- i. Sauna heater circuit diagram (Fig 1)



OCS090B-0CS170B

(Fig 1-a)

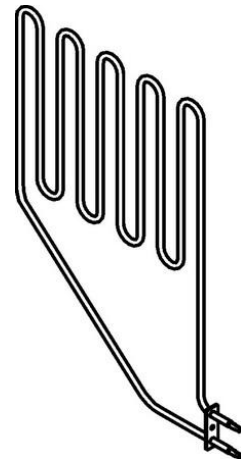
HEATING ELEMENT



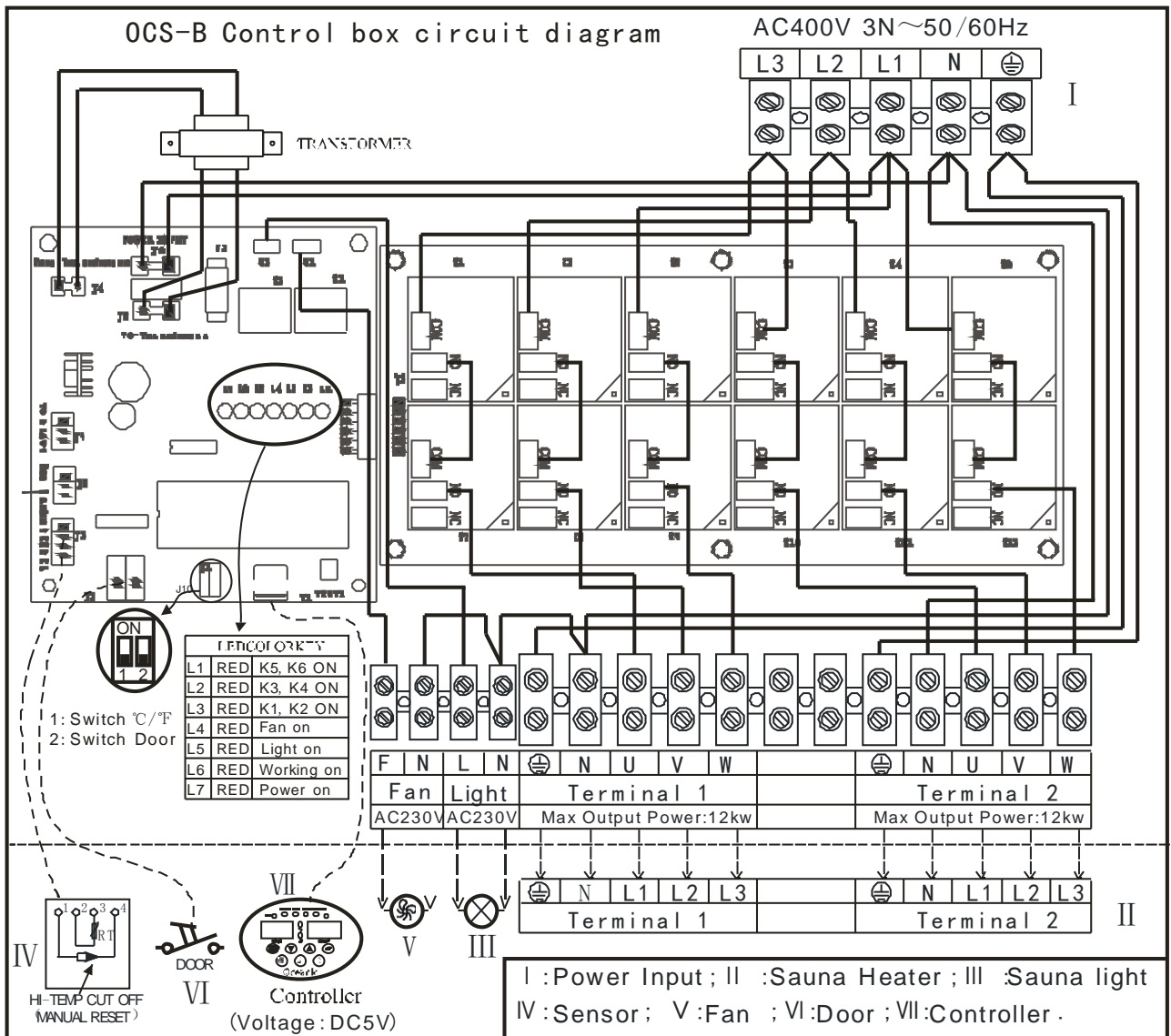
OCS180B-0CS210B

(Fig 1-b)

HEATING ELEMENT



ii. Circuit Diagram for control box (Fig2)

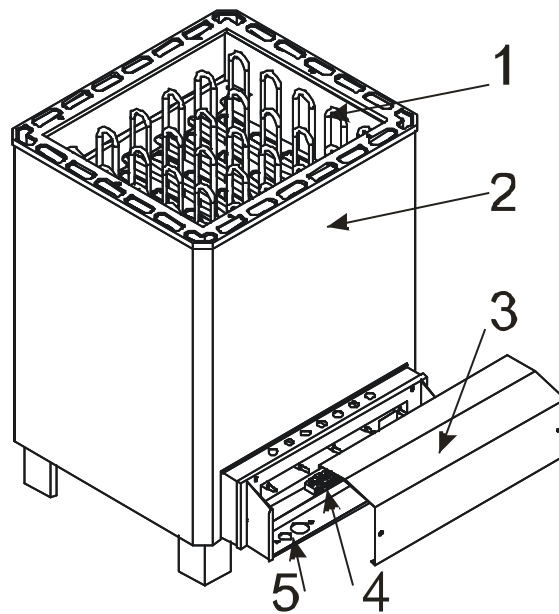


(fig 2)

## Chapter Two: frame and functions

### Sauna heater frame and parts

(1)、 Sauna heater frame (Fig 3)



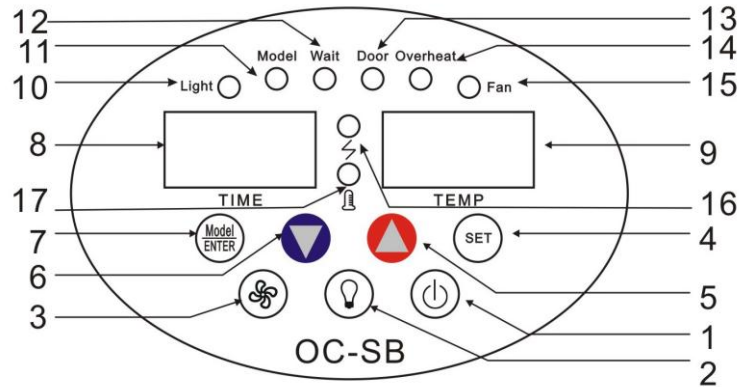
(Fig 3)

(2)、 Parts (Chart 4)

No.	parts	description
1	Heat element	heating
2	Shell	Insulate the inner shell to prevent from scalding
3	Cover Panel	Cover the electrical parts
4	terminal	Connect the power supply
5	Power entry	The route of power wires

1. OC-SB Controller frame and parts

(1)、 Controller frame (Fig 4)



(Fig 4)

(2)、 Keys and LED instruction (Chart 5)

Chart 5

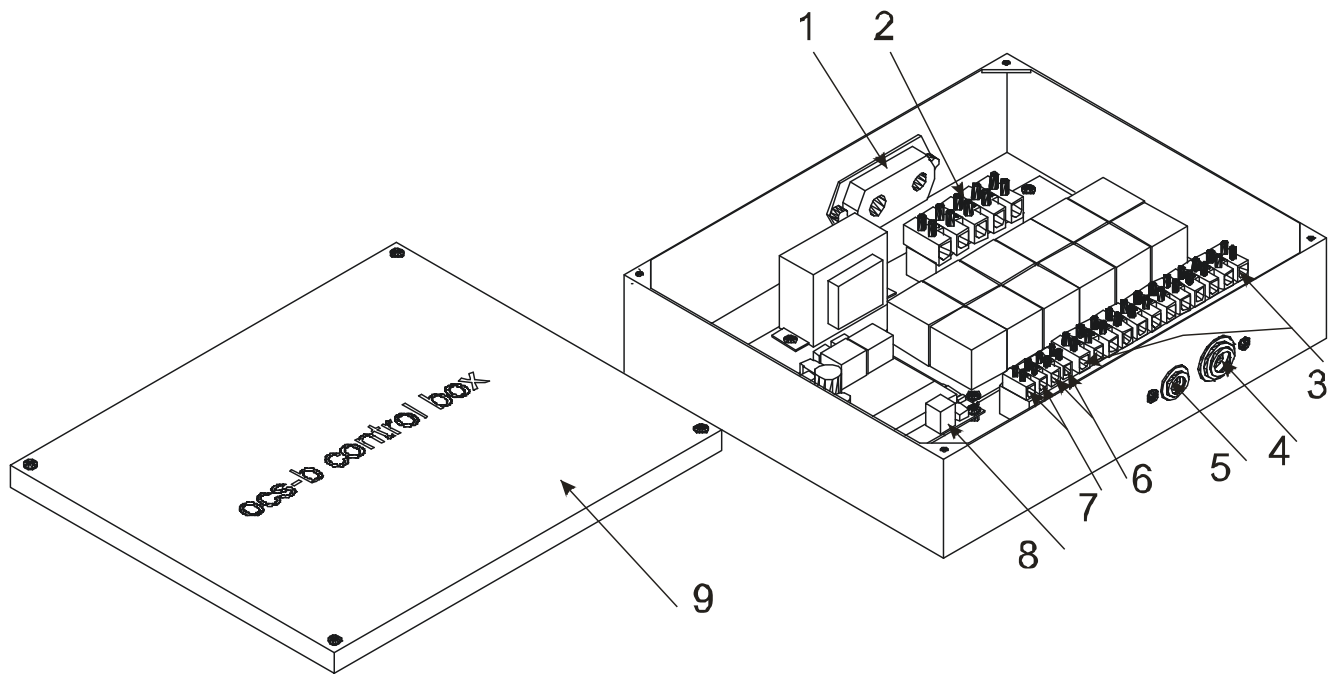
No.	Description	Function instruction
1	On/off button	Push to operate
2	Light button	Push to operate for sauna room light
3	Fan button	Push to operate for control box fan
4	Setting button	Preset time and temperature and the setting confirmation
5	Increase button	Press to increase
6	Increase button	Press to decrease
7	Mode button	Change working mode
8	Time display	Display working time or waiting time to work
9	Temp. display	Display temperature
10	Light LED	Indictor Led for sauna room lamp
11	Model LED	When this LED is lit the heater should be on.
12	Wait LED	When this LED is on the count down timer is on.
14	High temperature LED	When this LED is on the safety overheat cut out thermostat has tripped, this means the sauna has reached a temperature too high. You can reset with the button in the sensor but test the control by setting a temperature say 90oC and make sure the sauna temp stays around this.
15	Fan LED	Press to operate for fan

16	Heating LED	On means the heat element is working
17	Stop working LED	Once the room has reached the preset temperature this light will appear. This indicates that it has stop heating.



**2. Control box frame and parts**

(1)、 Control box frame(Fig 5)



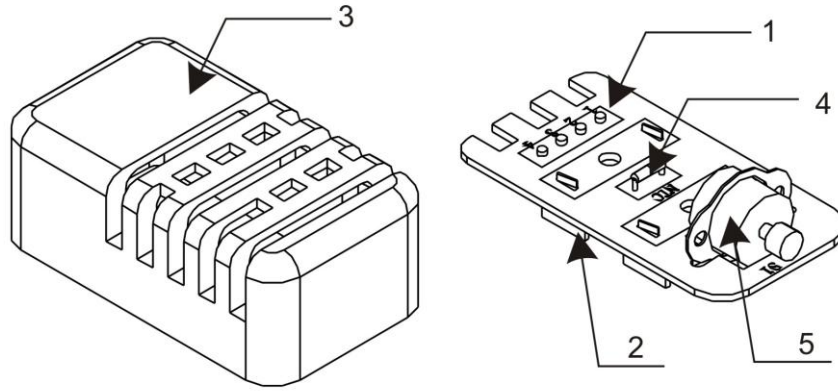
(Fig 5)

(2)、 Control box instruction (**chart 6**)

No.	Description	Function instruction
1	Wire anchorage	Route of wire entry and fasten wires
2	terminal	Connect to the power supply
3	Terminal	Connect to heater
4	Heater ,light and fan output	Outlet of wires to heater ,light and fan and fasten wires
5	Control cable entry	The entry of control cable
6	Light terminal	Connect to light wire
7	Fan terminal	Connect to fan wire
8	Control panel terminal	Connect to control cable
9	Cover	cover

**3. Temp sensor frame and parts**

(1)、 Temp sensor frame (Fig 6)



(Fig6)

(2)、 Temp sensor instruction (chart 6)

**Chart 7**

No.	Parts	Description
1	Circuit board	Circuit board
2	Bracket	Bracket
3	Cover	Protects the electronics
4	Heat resistance	Detects temperature
5	High Temp cut of switch	When temperature in sauna room exceed 120 °C or 248 °F. This can be reset by removing the cover and pressing the switch.

## Chapter Three: Installation

### 1. Important

Prior to installing sauna heater, please refer to Installation handbook and check it as following points:

- Is the output power and type of the heater suitable for the Sauna Room? See parameter table 1. (Technical parameter).
- Is the supply voltage suitable for the rated voltage of sauna heater.
- The location of the heater fulfils the minimum requirements concerning the distances given in Fig 7 and chart 8, and allow for safety and convenience.
- Choose the cable wire according to table 1, note for the cable to the heater you will need high temperature resistant silicon rubber cable wire.
- Do not install more than one heater in a sauna room unless twin-heater installations. (Warning: there must be 400 mm between two heaters when install two).

The heater gets very hot when working. To avoid the risk of accidental contact with the heater, it is recommended that a heater guard be provided.

A qualified technician must do the installation of the heater to ensure safety and reliability. Improper electrical connection can cause fire or electric shock. Refer to fig 1a or fig 1b and Fig. 2.

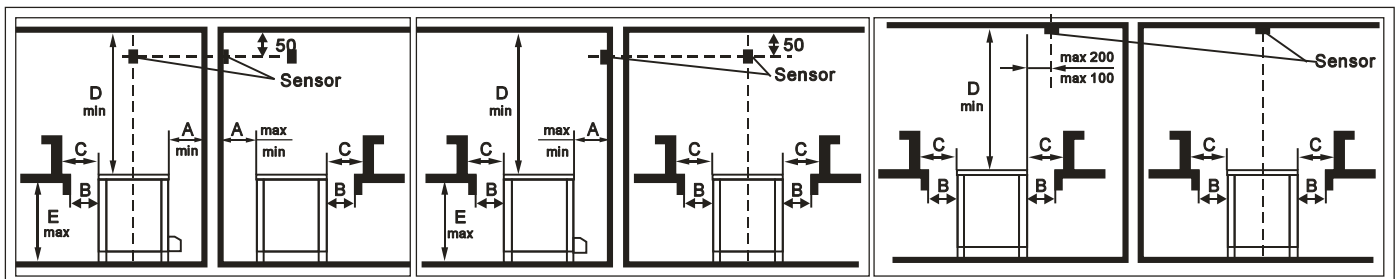


Fig 7  
Chart 8 Safety distance

Model	Safety distance					
	A	A	B	C	D	E
	min	max	min	min	min	max
	mm	mm	mm	mm	mm	mm
OCS090B	120	220	100	200	1200	630
OCS180B	160	260	100	200	1200	630

**1. Installation for sauna heater**

- Remove the cover panel & connect power supply wire & control cable through the wire anchorage to the Terminal as per fig. 8 and replace the cover panel.

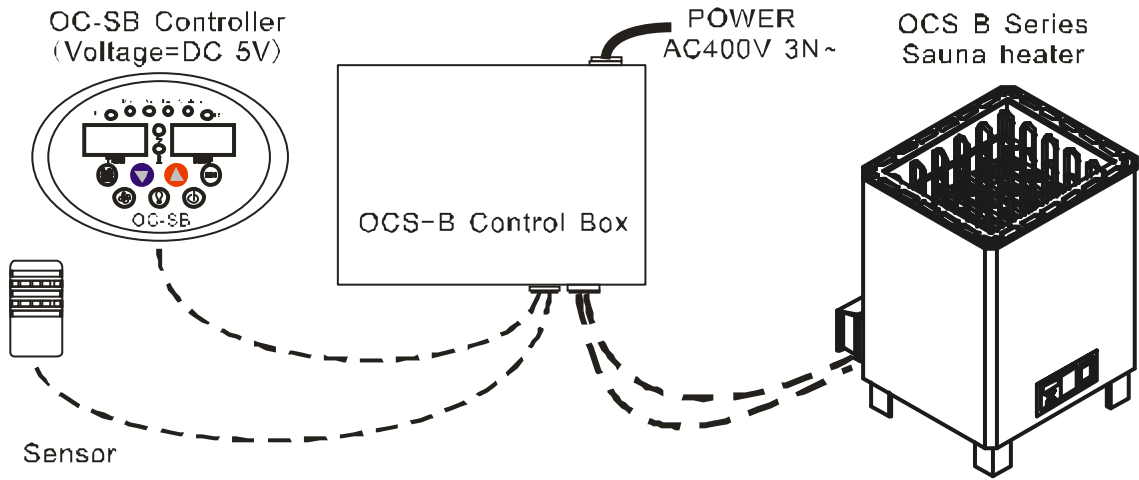


Fig 8

Remarks: control box output to sauna heater can't be bridged.

- 4.Multi sauna heater linking function

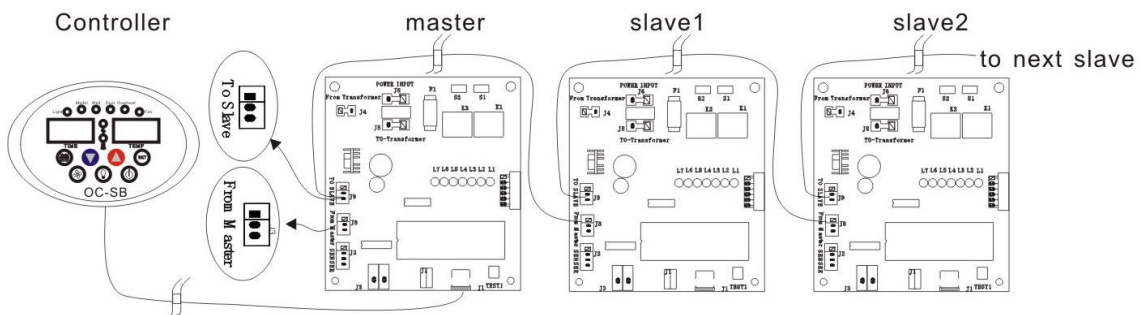
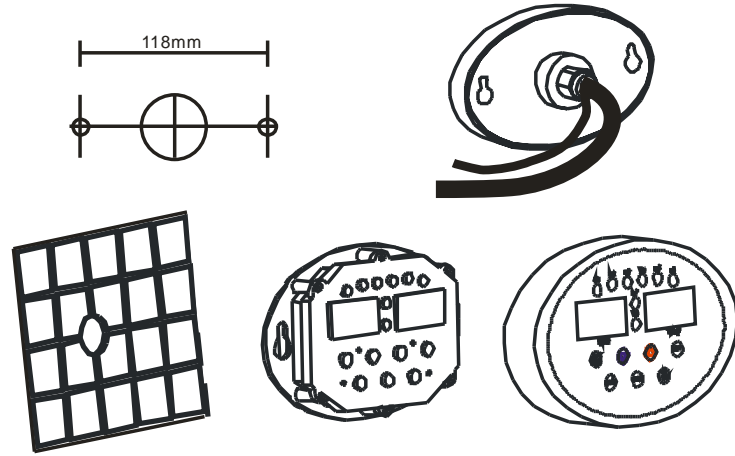


Fig 9

**2. Installation for controller**

- Ideally the control panel should be installed at switch height, approximately 1600mm for ease of use.
- Installation method: drill a  $\phi 40$ mm hole on wall for the wires. You can mount the panel by either drilling two holes 118mm apart for the screws or the easier method removed the plastic cover using a flat headed screw driver to carefully lever the cover off, then use the holes to mark your drill holes, remove panel and drill, replace panel screw into place.

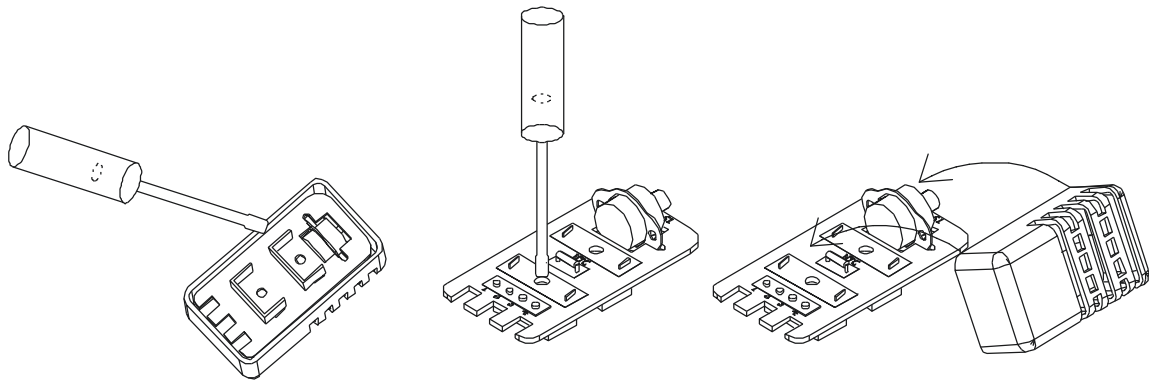


(Fig 10)

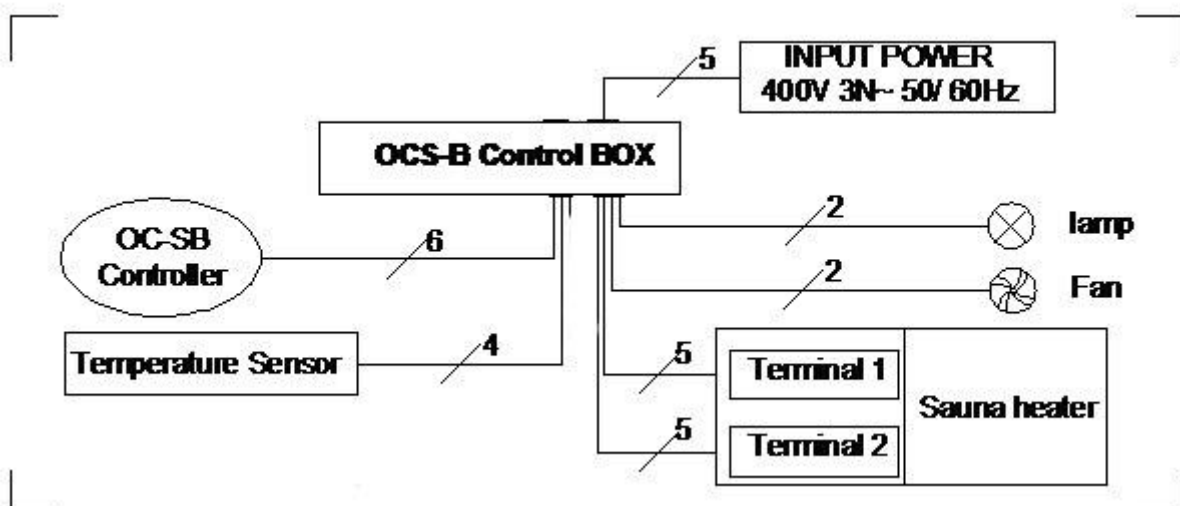
- The control wire should plug into the silver / black din socket on the PCB of the main OCB control box.

**3. Installation for Temp Sensor**

- Install the temperature sensor on the height between 1800MM in sauna room
- Open the cover with a screwdriver
- Fix the bottom of the temperature sensor on to wall with screw
- Replace the cover.



(Fig 11)



(Fig 12)

#### 4. Heater Guard (not supplied)

The heater should be guarded against accidental contact with a wooden guard similar to the one shown below – according to the position of the heater within the cabin it may need to be guarded on 2 or 3 sides.

Fix the guard in place around the heater by drilling & screwing accordingly.

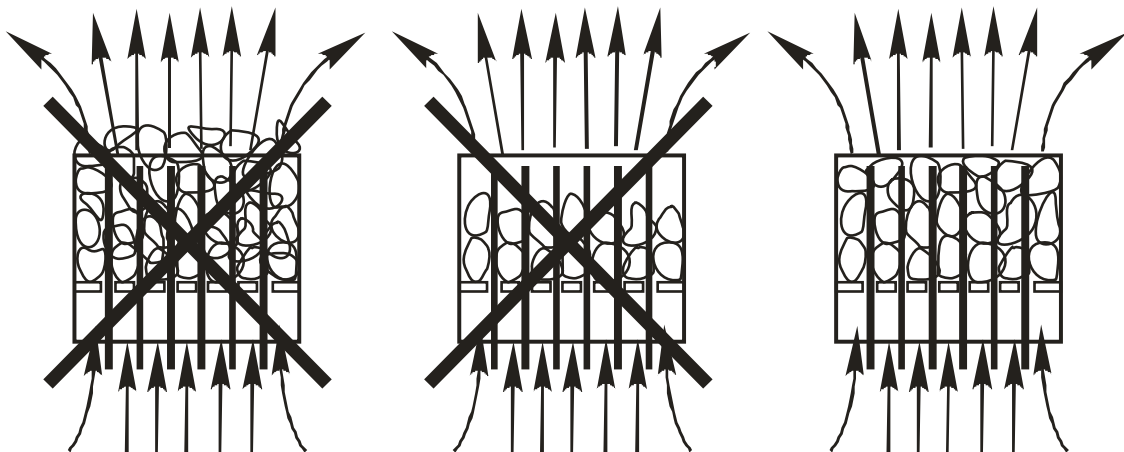


(Fig 13)

**Note: It is important that the top rail of the guard is set at least 30 mm below the rim of the heater such that it does not receive heat radiation directly from the heater rocks.**

#### 5. Sauna stones

**Do not use the heater without stone, otherwise it may cause a fire.** Only use Peridotite rock sauna rocks. These can be supplied from the dealer where you purchased the heater. Do not use ordinary stones, which may emit harmful substances, easily break and do not possess good heating capacity. Wash the stones to clear the dust before putting them into the heater. Stones of unspecified sizes should not be used. Put the larger stones at the bottom of stove compartment and the smaller ones on top. Do not pile them tightly so that air can flow freely. NOTE: Too tightly placed stones decrease working time of the heater element, the stones should plainly cover the heater element (refer to **Pile stones fig.14**). The diameter of stone is about 3-8cm. Rearrange the stones in the heater at least once a year or twice if it is in frequent use (maximum 500 hrs). To decide the correct volume of stones in heater, refer to table 1 (Technical parameter) provided.



(Fig 14)

## 6. Air ventilation of sauna room

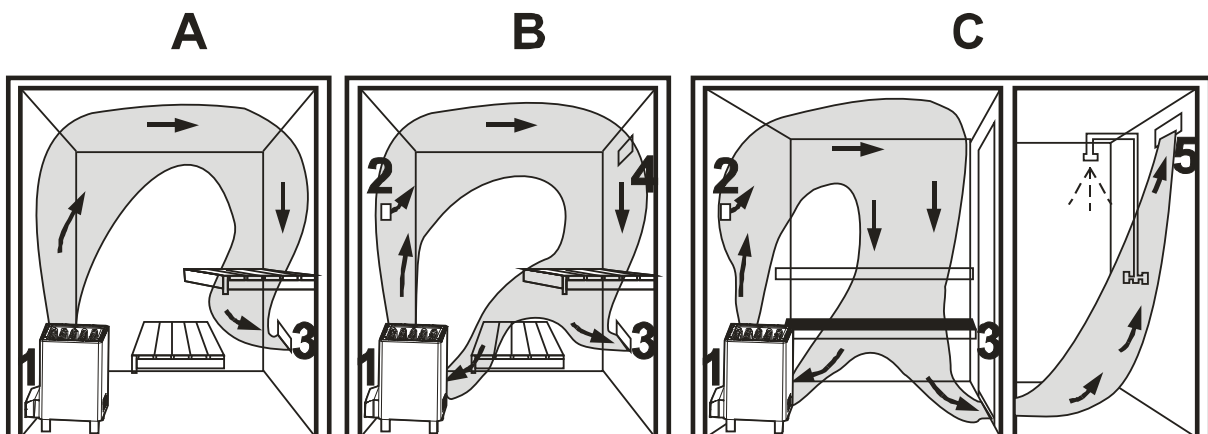
- Mix the cold air with hot air to relieve mugginess when bathing.
- Draw the fresh air around the heater to ventilate the sauna room.
- Move the heater air to the farthest part of sauna room considering air ventilation of sauna room, the inlet and outlet vent should be installed.

The inlet vent may be installed on the wall below the heater. (fig 15a).when using mechanical ventilation ,inlet vent is placed 50cm above the heater (fig 15b) or on the ceiling above the heater (fig 15c).the heavy cold air that blown into sauna room is mixed with the light hot air from the heater ,bringing fresh air for bathers. The recommended inlet should have a diameter of 5—10cm.

The outlet vent should be placed diagonally opposite to the inlet. It is advised the outlet vent is placed under the platform in sauna room as far as possible from the inlet vent. It can be installed near the floor, or lead outside through a pipe from the floor going to a vent to the sauna ceiling, or under the door (to the wash room). In this case, the sill slot must be at least 5cm and it is recommended there is mechanical ventilation in washroom the size of the outlet should be twice of the inlet.

### ▲ Warning:

1. Do not power on when making electrical installation.
2. Do not hang clothes to dry in the heater, for this may cause a risk of fire.
3. Do not bake food in heater.
4. Keep away from the heater. When it is hot, the outer surface of the heater may burn your skin.







(Fig 15)

- 1、 Air supply vent
- 2、 optional air supply vent if mechanical exhaust ventilation is used, the opening is located 50cm above the heater
- 3、 exhaust air vent
- 4、 Drying vent, which is closed during heating and bathing, the sauna room can also be dried by leaving the door open after bathing
- 5、 If there is only an exhaust vent in washing room, leave an opening (MIN CM). Under the sauna door (Mechanical ventilation is recommended)

## Chapter Four: Testing and operation

### 1. Testing

- Before connecting to the power supply check the sauna heater and make sure there are no flammable items on or around the heater, please note that on the first use the elements and stones may smoke slightly and give off a smell – please ensure the sauna cabin is well ventilated.
- Connect to power supply, press “” key, temp and time windows will display data, LED shows the sauna’s heating status when the light is on, the temperature of sauna room will rise and will achieve the preset temperature (the default settings are 75 °C/167°F, work time is 2 hours) chart 9
- When the time has finished counting down and the time window displays “0”, the controller and heater will shut down automatically.
- “”: Turns sauna light on/off
- “”: Turns sauna fan on/off
- The Controller has a timing device so you can set a time when you want the heater to power up, this can be set from 0~12 hours as shown in the **Chart 9** below. When the controller is in B Model (Timer mode) the heater can’t operate, but when B Model reaches “0” or the “” is pressed the heating function will start (A Model). This is explained more at the bottom of this page.

**Chart 9**

Model	Default model	Default Temp		Temperature adjust scope	
		°C	°F	°C	°F
OC-SB	A	75	167	50~110	122~230
	Default time			Time adjust scope	
	Working time	Waiting		Work time	Waiting time
	2 hours	4 hours		10 minutes~8 hours	0~12 hours
	<i>The time adjustment difference for every press</i>			<i>The temperature adjustment difference for every press</i>	
	10minutes			1°C/2°F	



## 2. Setting time and temperature:

- The default settings for temperature are: 75°C/167 °F. For preset operation time: 2 hours. These can be adjusted easily, if the electricity supply is lost the controller will return to default settings.
- When the sauna is turned on the time settings will work under A model (A model LED is on), the time window will display the last time that was set. Press "SET" key the time display window will flash. press "▲" or "▼" to adjust the time, every press the time will increase or reduce 10 minutes. once the desired setting is reached press "MODEL ENTER" the window will stop flashing. You can adjust from the time from 10 minutes to 8 hours. Note the controller has a memory function, if the power supply is not cut off the next time you turn on sauna heater the time you selected will be the default time.
- To set your heater to come on at a certain time (for example: if you plan to watch a film and want the sauna to start heating up half way through so its ready at the end of the film) you can use the B model setting which can be set if you press the "MODEL ENTER" and the time window will display **4:00**, now Press "SET" key the time display window will flash. press "▲" or "▼" to adjust the time, every press the time will increase or reduce 10 minutes. once the desired setting is reached press "MODEL ENTER" the window will stop flashing., when it reaches "0" it will switch over to A Model and the heater will turn on. (Remember to set the time you want the heater on for on A Model before setting B Model)
- For quick time adjustment: hold the "▲" or "▼" and it will count continuously up or down, when it reaches the time you want release and it will stop.
- Temperature: switch button you can switch between centigrade and Fahrenheit.
- To adjust temperature: if you press "SET" once after you finish setting the time or otherwise twice the temperature window will flash, enter the required temperature by pressing "▲" or "▼" to adjust - every press will increase or reduce 1 °C or 2 °F .you can adjust from 50°C-110°C ( 122°F -230°F ) once the required temperature has been set press "MODEL ENTER" key the window will stop flashing.

## Chapter Five: Trouble shooting Guide

**Please Note that we recommend a suitably qualified person carries out all repairs.**

Trouble description	Cause	Solutions
There is no display on the control panel when the on/off switch is pressed	There is a problem with; 1.power supply 2.circuit board transformer 3.fuse	<ol style="list-style-type: none"> <li>1. Check the power supply. If the power supply indicator LED L1 (red) is on, check the wire</li> <li>2. Change the controller</li> </ol>
The controller is on but the sauna heater doesn't work	<ol style="list-style-type: none"> <li>1. The sauna heater hasn't been connected</li> <li>2. There is a problem with the controller</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the connection, refer to <b>(Fig 2 )</b></li> <li>2. Change the controller</li> </ol>
Overheat LED is on	<ol style="list-style-type: none"> <li>1. The temperature sensor hasn't been connected correctly</li> <li>2. The high temperature cut off switch is turned off</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the connection to temperature sensor</li> <li>2. Check if the high temperature cut off switch is turned off, if yes, reset by hand. Page.10 Fig.6</li> </ol>
Wait LED is on red	Sauna heater is in timer mode	If you want heat press the Model button to change to A model (heating Mode)
Temperature windows display --L °C(or °F)or --H °C ( or °F)	<ol style="list-style-type: none"> <li>1. Temp sensor isn't connected or cable is broken</li> <li>2. The temperature is lower than 0 °C (or 32°F),  The temperature is higher than 115 °C (or 239°F)</li> </ol>	<ol style="list-style-type: none"> <li>1. – L °C(or °F) means temperature sensor hasn't been connected or the temperature is lower than 0 °C (or 32°F), check the connection, cable or change sensor</li> <li>2. – H °C (or°F) means there is a short circuit in the temperature sensor or the temperature is higher than 115 °C (or 239°F) check the connection, cable or change sensor</li> <li>3. Change controller</li> </ol>

## Chapter Six Maintenance

We recommend that you inspect the sauna heater on a regular basis for any signs of deterioration of the condition, pay particular attention to both the fastenings, the condition of the wiring and the electrical elements.

Note if the rocks have started to crumble this can cause the elements to overheat and they should be changed for new rocks. We recommend commercial operators to change the rocks at least once every 12 months.

## Chapter Seven: Warranty & After Sales

All OCS Series Sauna Heaters are guaranteed for 1 year from the date of purchase against faulty materials or workmanship. The guarantee excludes consumable items such as the electrical elements and faults arising from misuse or abuse of the appliance. For warranty claims and after sales service please see contact details below.

<b>Unit Serial Number:</b>	
<b>JC Number:</b>	
<b>Installation Date:</b>	
<b>Customer service:</b>	<a href="mailto:Customerservice@continentalsa.co">Customerservice@continentalsa.co</a> Tel: +2711 822 7170 Fax: +2711 822 7169 Http://www.continentalsa.co