

# Oceanic Sauna Heater Manual



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

“Oceanic” sauna heaters are available in specifications from 3kw to 9kw and are equipped with our OC-SA digital controller. With this not only can you control the temperature and time duration of your sauna bath but also the light of the sauna room, alter the temperature display between Centigrade and Fahrenheit; as well as displaying the sauna heater’s status.

Every “Oceanic” sauna heater is thoroughly tested before leaving the factory.

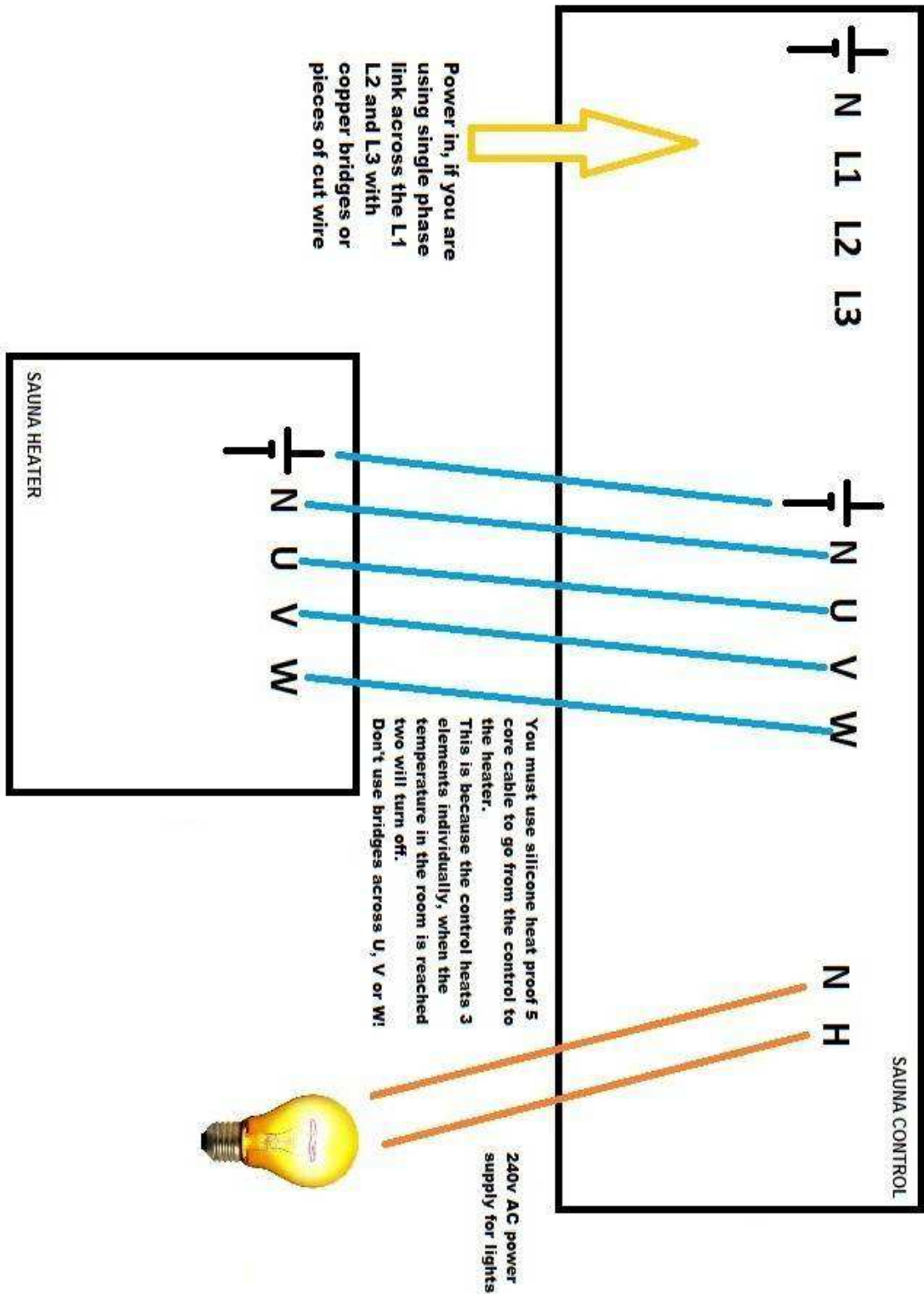
## IMPORTANT

- 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
- All heaters can be connected single phase(230v) or triple phase(400v), this can be easily changed by adding bridge connectors across the connections L1, L2 and L3.
- 5 core silicon bound heat proof cable must be used to wire from the control to the heater. (For 230v and 400v) Wire the letters with the corresponding letters on the heater. For example: U V W on the control go to U V W on the heater, the three lives for the elements, the reason for having three is because each element is controlled individually. When the heater reaches the desired temp it cuts out two elements.
- The sauna heater should not be used for any other purpose
- Do not cover the heater or allow contact with flammable materials such as toweling – Risk of fire.
- Do not operate sauna heater without sauna stone
- Do not touch the heater when operational as it is very hot
- Sauna heater must have right earth connection, the earth wire should be bigger than the power supply wire to sauna heater
- The sauna controller should be installed on a dry wall outside the sauna cabin

**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;
- Commercial operators should post a notice of these precautions in a prominent position
- The sauna controller should be installed on a dry wall outside the sauna cabin

## Simple Diagram



## Chapter One: Specification

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

Chart 1

Model	Power	Input		Size (mm)			Heat element quantity	Sauna stone (Kg)
	(Kw)	1N~	3N~	L	W	H		
OCS30	3.0	230V		410	280	570	2	12-14
OCS40	4.0	230V		410	280	570	2	13-15
OCS45	4.5	230V	400	410	280	570	3	14-16
OCS60	6.0	230V	400	410	280	570	3	16-18
OCS80	8.0	230V	400	410	280	570	3	18-20
OCS90	9.0	230V	400	410	280	570	3	18-20

### 2. Parameter and size of OC-SA controller (chart 2)

Chart 2

Model	Input		Output		Load power	Size (mm)		
	1N~	3N~	1N~	3N~	(Kw)	L	W	H
OC-SA I	230V		230V		3~4	248	217	78
OC-SA II	230V	400V	230V	400V	4.5~9	280	217	78

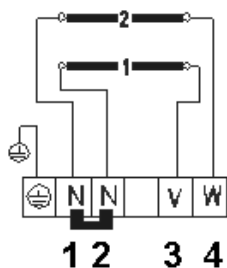
### 3. Parameter and size of temperature sensor (chart 3)

Chart 3

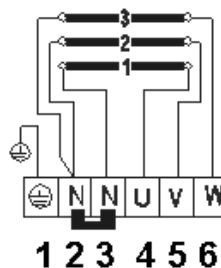
Model	Detected scope		Cut off on high temperature		Size (mm)		
	°C	°F	°C	°F	L	W	H
OC-S	0~110	32~230	120	248	76	42	27

### 4. Circuit Diagram for sauna heater and controller

#### i. Sauna heater circuit diagram (Fig 1)



OC30~OC40 Circuit diagram

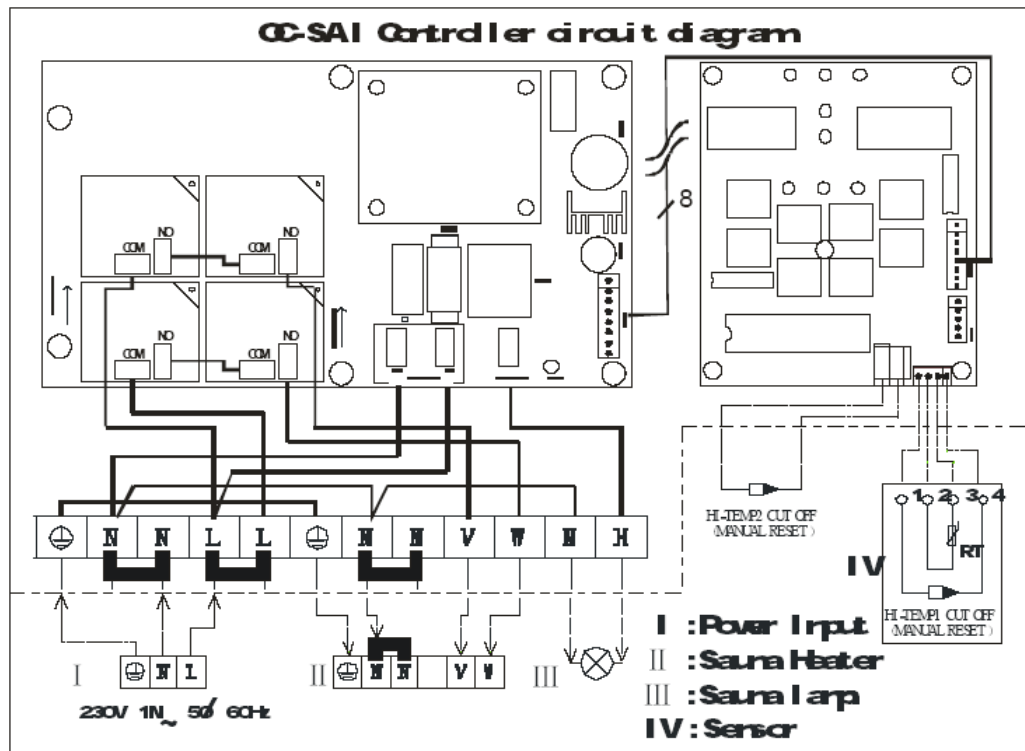


OC45~OC90 Circuit diagram

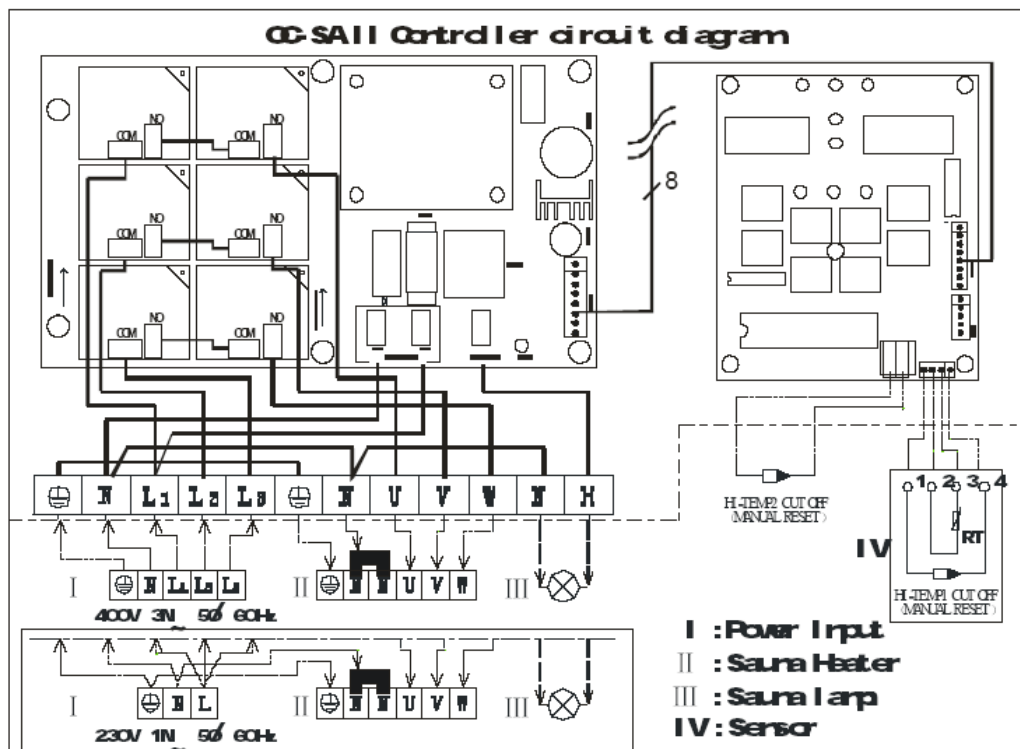
(Fig 1)

ii. Circuit Diagram for controller (Fig2, Fig3)

(Fig 2)



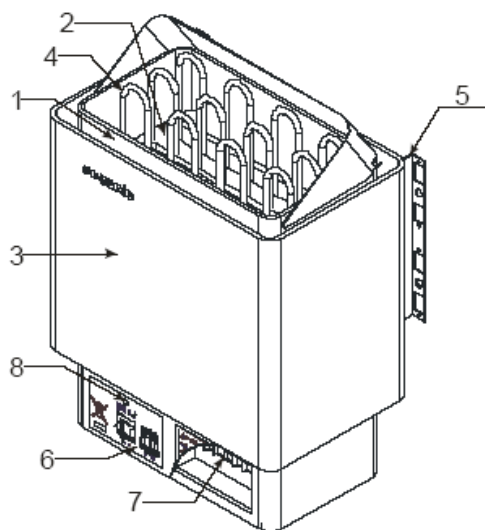
(Fig3)



## Chapter Two: frame and functions

### 1. Sauna heater frame and parts

(1) Sauna heater frame **(Fig 4)**



**(Fig 4)**

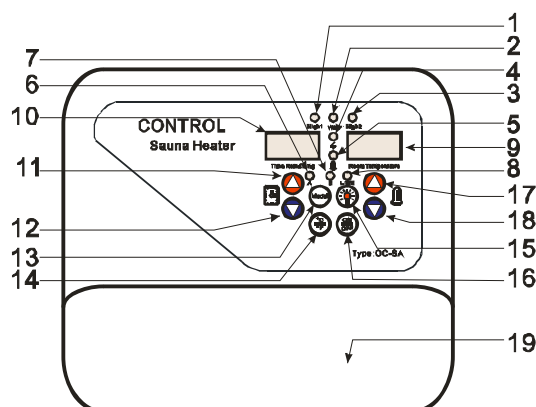
(2) Parts

Chart 4

No.	Parts
1	<b>Inner shell</b>
2	<b>Stone bracket</b>
3	<b>Shell</b>
4	<b>Heat element</b>
5	<b>Fix bracket</b>
6	<b>Cover Panel</b>
7	<b>Terminal</b>

## 2. Controller frame and parts

- Controller frame (**Fig 5**)



(Fig 5)

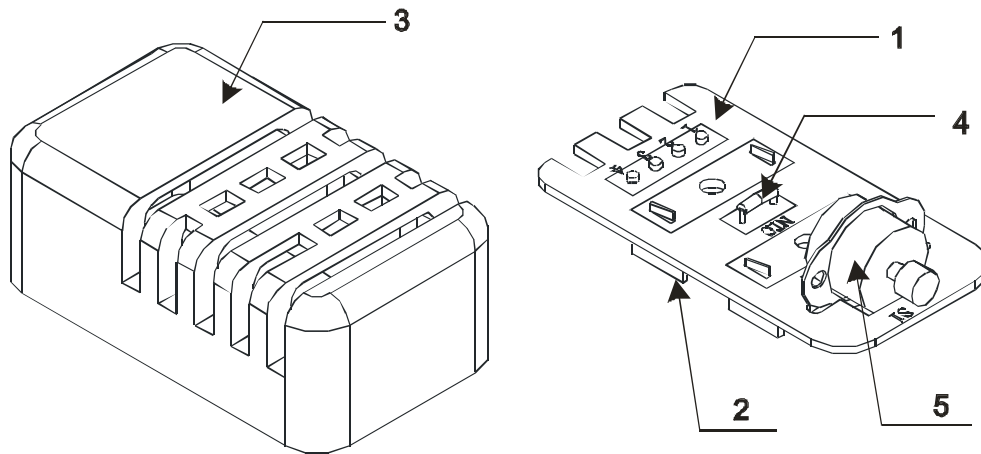
- Keys and LED instruction (**Chart 5**)

Chart 5

No.	Parts	Description
1	High1 LED	<b>Indicator LED on when sauna over heats (serious hazard) (Reset Manually)</b>
2	Wait LED	<b>Indicator LED when timer is on (B Model)</b>
3	High Heat 2	<b>Only for use in U.S.A, ignore if it doesn't apply to you.</b>
4	Heating LED	<b>Indicator LED on when heating</b>
5	Heat preservation LED	<b>Indicator LED for Heat preservation (one element remains on)</b>
6	A model LED	<b>Indicator LED for A model when heater is on</b>
7	B model LED	<b>Indicator LED B model, means sauna heater is a timer</b>
8	Light LED	<b>Indicator LED when lamp is on in sauna room</b>
9	Temp display windows	<b>Displays the temperature of sauna room</b>
10	Time display window	<b>Displays the time remaining for the timer or heating.</b>
11	Time Increase button “▲”	<b>Increase button</b>
12	Time decrease button or “▼”	<b>Decrease button</b>
13	Model switch button	<b>Switch between timer and heating program</b>
14	°C / °F button	<b>Switch the temperature display between centigrade and Fahrenheit</b>
15	Light	<b>Push for a few seconds to turn on the light in sauna room</b>
16	ON/OFF	<b>Push to turn the heater On or Off</b>
17	Temp Increase button “▲”	<b>Increase button</b>
18	Temp decrease button “▼”	<b>Decrease button</b>
19	Controller shell	<b>Protects the electronics from damage or users injury.</b>

### 3.Temp sensor frame and parts

- Temp sensor frame (Fig 6)



(Fig6)

- Temp sensor instruction (**chart 6**)

**Chart 6**

No.	Parts	Description
1	Circuit board	<b>Circuit board</b>
2	Bracket	<b>Bracket</b>
3	Cover	<b>Protects the electronics</b>
4	Heat resistance	<b>Detects temperature</b>
5	High Temp cut of switch	<b>When temperature in sauna room exceed 120 °C or 248 °F</b>



## Chapter Three: installation

### 1. Important

- Confirm the model you have selected is suitable for your sauna room, please refer to chart 7
- Ensure the power supply is suitable for the sauna heater
- Isolate the power supply before installation
- The installation position must comply with the minimum distance in chart 7; also consider the safety and convenience (chart 8)
- The minimum height of your sauna room must be 1900mm, please refer fig 7C
- Do not install the sauna heater on the floor or in a cabinet
- Do not cover the sauna heater back with asbestos cement or similar material
- The wire which enters the sauna room must be type 60245 IEC 66 HO7RN-F (BSEN 6141) please refer to chart 7
- Do not install two or more sauna heaters in one sauna room.
- The sauna heater becomes very hot when operating and must be guarded to protect incase of accidental contact, please see the sizes in fig 7D and also refer to charts 7 & 8
- The upper supporting screws must be fixed tightly, there is a 3mm gap between the screw head and wall (refer fig 4A, fig 4B), additional retaining screws should be inserted into the round holes to prevent the heater being lifted.
- The sauna controller should be installed on a dry wall outside the sauna cabin
- The controller should be kept at a height of between 1200MM-1500MM so that it is easily controlled and operated
- Temperature sensors should be installed in sauna room but not directly above sauna heater, the height should be 1500-1800mm from floor. The horizontal distance to sauna heater should exceed 500mm

## Chart 7

Model	Sauna room			Min distance from sauna heater to (mm)			Current (A)		Fuse (A)	
	Volume (M <sup>3</sup> )		Min height (Mm)	Distance to shelf over 500mm above the floor	Ceiling	Floor	230V 1N~	400V 3N~	230V 1N~	400V 3N~
	Min	Max								
OCS30	2	4	1900	50	1100	180	13		20	
OCS40	3	5	1900	50	1100	180	17		25	
OCS45	4	6	1900	80	1100	180	19.5	6.5	25	10
OCS60	5	8	1900	150	1100	180	27	9	40	16
OCS80	7	11	1900	200	1100	180	35	12	60	20
OCS90	8	12	1900	200	1100	180	39	13	60	20

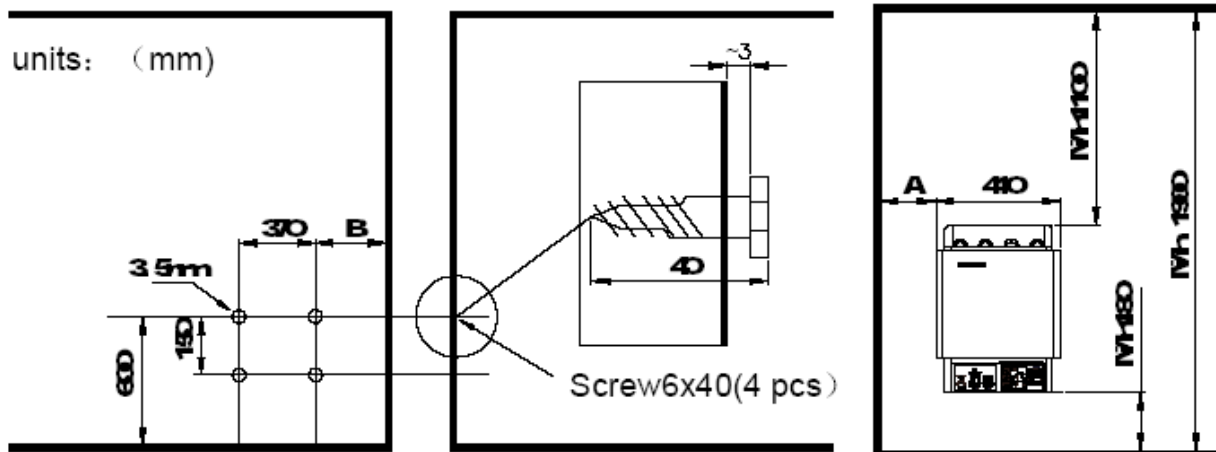
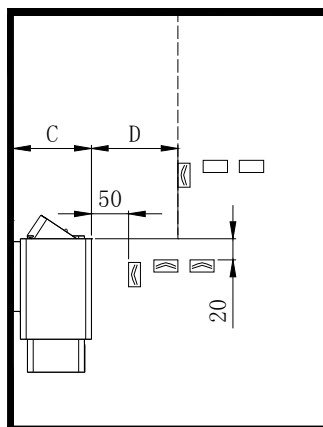


Fig 7A

fig 7B

fig 7C



Model	Min distance (mm)			
	A	B	C	D
OCS30	50	70	280	100
OCS40	50	70	280	100
OCS45	80	100	280	100
OCS60	100	120	280	150
OCS80	130	150	290	200
OCS90	130	150	290	200

Fig 7D

chart 8

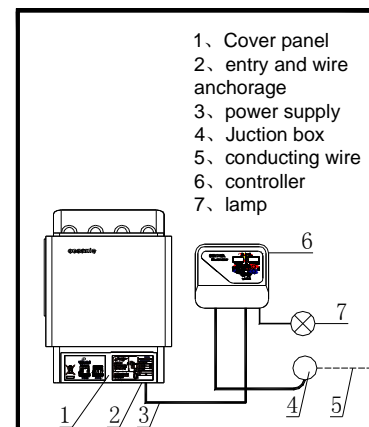


fig 8

## 2. Installation for sauna heater

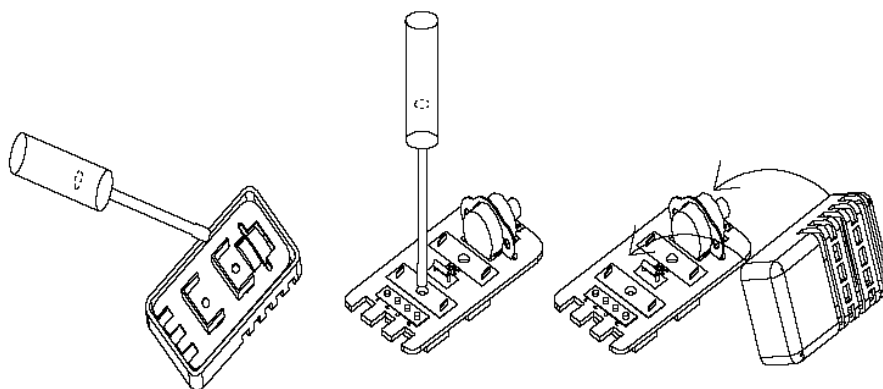
- Refer the installation drawing fig 7A, 7B, Fix screws and hang sauna heater on wall
- Remove the cover panel & connect power supply wire & control cable through the knock-out holes to the Terminal as per fig 8 and replace the cover panel.

## 3. Installation for controller

- Controller should be installed on the outside dry wall
- Fix a screw at 1200-1500 mm high on the wall outside wall of the sauna cabin leaving approximately 3mm protruding. Fix retaining screws through 2 of the round holes.
- Remove the screw on the base of controller & open the cover, remove the knock out for the control wire entry.
- Locate the hole of controller on to the protruding screw, then fix in place using 2 further screws through the holes in the back of the control box directly into the sauna cabin wall.
- Connect the wires in accordance with the drawing and ensure all connections are tightly fastened.
- Replace the cover and fasten.

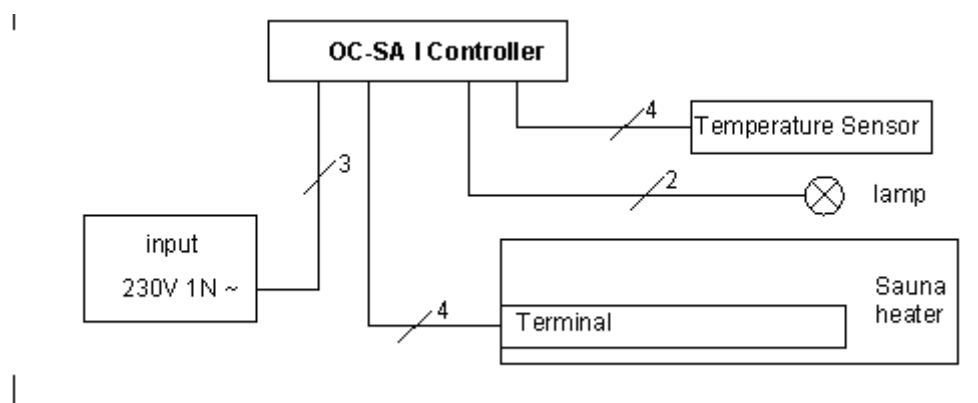
## 4. Installation for Temp sensor (fig 9)

- Install the temperature sensor on the height between 1500-1800MM in sauna room
- Open the cover with a screwdriver
- Fix the bottom of the temperature sensor on to wall with screw
- Replace the cover.

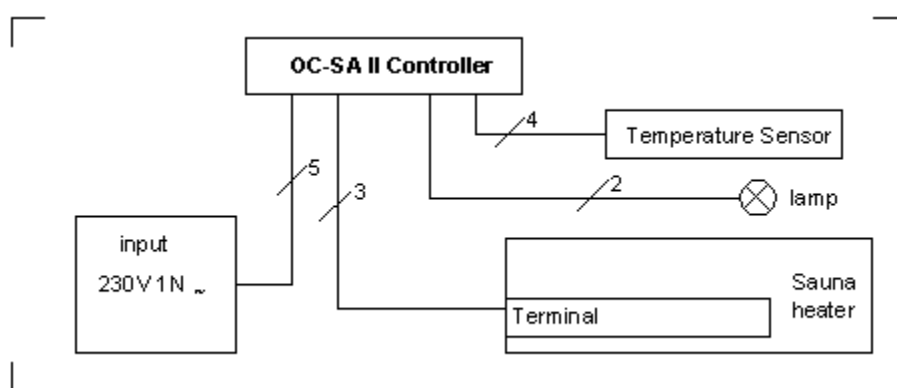


(Fig 9)

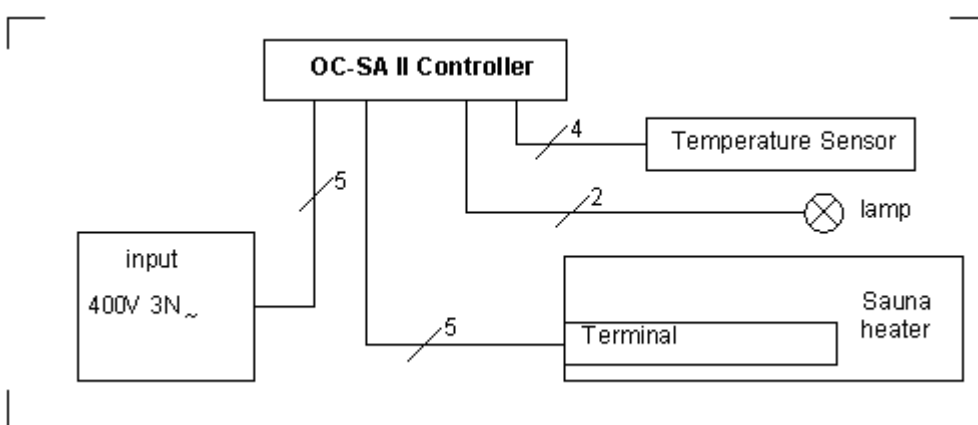
5. Sauna heater, controller and temperature sensor connection drawing (Fig10A, Fig 10B, F869g 10C)



(Fig 10A)



(Fig 10B)

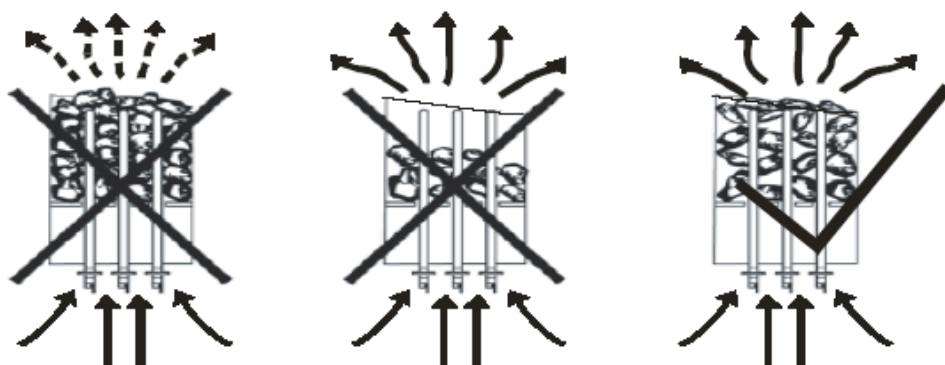


(Fig 10C)

## Chapter Four: Testing and operation

### 1. Testing

- After checking that the sauna heater installation is correct, put the sauna stone in place (note we recommend washing the stones thoroughly in water to remove any dust before the first use). Put the larger stones at the bottom and smaller stones on top. Take care not to pack the stones too tightly otherwise the air will not be able to circulate around the elements which can cause premature failure, but do make sure to cover the elements completely. Note that it will be necessary to change the stones from time to time as they will gradually crumble with use. For commercial users this is probably every year, for domestic users once every several years, depending upon use. (Fig 11)



(Fig 11)

- 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 “ON/OFF “, 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 70 °C/158°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.
- The sauna heater has a sequential heating function so that the heater can work economically. When the heater is first turned on all the elements will work together to reach the target temperature, when the target is reached one element will be left working to keep the target temperature constant (for OCS30, OCS40 ,one bank will stop ). When sauna room temperature goes 2°C/ 4 °F above the target temperature all heat elements will stop. When the temperature of the sauna goes below the target temperature, one bank heat element will work again, when the temperature goes 2°C/ 4 °F below the

target temperature, all heat elements will work again.

- Light button: Turns sauna light on/off
- Use temperature switch button to change the temperature display between centigrade and Fahrenheit
- 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 "Model Button" 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-SA I  OC-SA II	A	75	167	50~110	122~230
	A	75	167	50~110	122~230
	Default time			Time adjust scope	
	Working time	Waiting		Work time	Waiting time
	2 hours	4 hours		30 minutes~6hours	0~12 hours
	The time adjustment difference for every press			The temperature adjustment difference for every press	
	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. To adjust press the time adjust button “▲” or “▼”, every press the time will increase or reduce 10 minutes. When you reach the time want, wait and after 5 seconds the time window will stop flashing, now the setting is confirmed.
- To set your heater to come on at a certain time (for example: if your watching a film and want the sauna to start heating up half way through so its ready for the end of the film) you can use the B model setting which can be set if you press the “Model button” and the time window will display 4.00 minutes, now press the “time adjust button” (the time will now flash) “▲” or “▼” and set the amount of time you want until the heater will turn on wait five seconds and the display will stop flashing now the time is confirmed and will start counting down, 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. It will confirm after 5 seconds
- Temperature: by pressing temperature display switch button you can switch between centigrade and Fahrenheit.

To adjust temperature press “▲” or “▼” (the display will flash) now press the temp adjust button “▲” or “▼”, each press the temperature will increase or reduce 1 °C or 2 °F. When you reach the temperature you want wait for 5 seconds and the temp will stop flashing which means its confirmed.

For quick temperature adjustment: hold the “▲” or “▼” and it will count continuously up or down, when it reaches the temperature you want release and it will stop. It will confirm after 5 seconds

## 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 or 2.circuit board transformer or 3.fuse	1. Check the power supply. If the power supply indicator LED L1 (red) is on, check the wire 2. Change the controller
The controller is on but the sauna heater doesn't work	1. The sauna heater hasn't been connected 2. There is a problem with the controller	1. Check the connection, refer to <b>(Fig 2 and Fig 10)</b> 2. Change the controller
High1 LED is on	1. The temperature sensor hasn't been connected correctly 2. The high temperature cut off switch is turned off	1. Check the connection to temperature sensor 2. Check if the high temperature cut off switch is turned off, if yes ,reset by hand
Wait LED is on	Sauna heater is under B model	Press the Model button to change to A model (heating Mode)
Temperature windows display --L (or )or --H (or )	1. Thermometer isn't connected or cable is broken 2. The temperature is lower than 0 °C (or 32°F), The temperature is higher than 115 °C (or 239°F)	1. – L °C (or °F) means temperature sensor hasn't connected or the temperature is lower than 0 °C (or 32°F), check the connection, cable or change sensor 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 3. Change controller



## 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.

### Sauna Heaters & Sauna Cabins Maintenance

All Sauna products supplied by Direct Saunas Limited and Oceanic Saunas are for use in an indoor environment such as a domestic house or a club building and should not be used in any other circumstances.

### Sauna Maintenance

Dependant upon how regularly the sauna cabin is being used a series of maintenance checks should be performed on the sauna cabin and sauna heater to ensure that they are kept in a good state of repair.

For commercial users we recommend these inspections be conducted on a monthly basis by a member of the maintenance staff and detailed records kept.

For domestic use these checks should be carried out every 6 months.

Any obvious deterioration should be noted immediately if noticed in between maintenance checks and should be resolved before continuing use of the products.

Under no circumstances do we recommend operating the sauna cabin if any electrical wiring is considered to be hazardous, please contact your electrician or our technical department for assistance.

### Maintenance Checks

Please note all maintenance checks should be performed whilst the sauna cabin and sauna heater are cold.

### Sauna Heater:

Ensure the heater has been correctly disconnected from the mains electricity before these checks are conducted

- 1) Check sauna elements for signs of deterioration. Report any signs of deterioration to the supplier
- 2) Make sure all rocks are placed correctly onto the heater elements to ensure an adequate airflow around the elements. Note that the rocks will gradually crumble and settle around the elements which can then cause overheating, this may lead to early failure or even melting of the elements.

For commercial operators an electrician must periodically inspect and ensure all the wiring is in a good condition and all connections are good and tight – a good idea would be to have this carried out annually as for PAT testing.

**Sauna Cabin**

- 1) Ensure all signage (safety and usage) is in place and in a readable condition.
- 2) Check the benches are secure and have no signs of deterioration, if benches have become loose ensure they are tightened correctly.
- 3) If there are any splinters on the bench sand over lightly until they have been removed.
- 4) Any major damage to the benches should be reported to the supplier and further advice will be given.
- 5) Ensure the timbers surrounding the heater have not become charred. Any offending timber slats should be replaced in a reasonable time period.
- 6) Ensure that the heater guard is in place and conforms to the clearance distances stated in the sauna heater manual. Check for any signs of charring and replace the heater guard if it is showing signs of disrepair.
- 7) The sauna cabin should be kept in a clean and hygienic state at all times. It is recommended that the benches in the sauna are wiped down with a weak solution of disinfectant and water after each use we especially recommend this in commercial divisions. The floor in the sauna should be mopped regularly.

## **Chapter Seven: Warranty & After Sales**

All Oceanic Sauna Heaters are guaranteed for 12 months 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.

Elements last for 2500 hours, after this time has passed you should be expecting to buy new ones, premature failure can be caused by:

- A half filled rock basket.
- Rocks forced against elements from bad filling
- Customers throwing large amounts of water over the rocks, for heavy duty places we recommend screwing the bucket to the bench this prevents this from happening.
- Incorrectly wired heater.

For warranty claims and after sales service outside of the guarantee please contact your local Oceanic dealer.

If you encounter any difficulty with this assembly procedure or think we could have explained anything more clearly we would welcome your comments, please ☎ 01902 655425 or 01902 871127 technical help line.