

# Oceanic

## Sauna & Steam

### **SAUNA HEATER** **Built in Controls with** **Temperatur Sensor** Assembly and operating manual



7.09.2019

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## Sauna Heater Manual

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### 1. Introduction

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.

Depending upon the size of cabin heaters from 2.5kW to 9kW can be used in single or three phase.

### 2. Important Notes

- Read the manual before installation and operation.
- This Equipment must be installed by competent person.
- This equipment must be connected to an RCD protected all pole isolator.
- 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 towelling – Risk of fire.
- Do not operate sauna heater without sauna stone
- Do not touch the heater when operational as it is very hot
- This equipment is intended for indoor use only
- This equipment is not intended for marine use

### 3. Safety Precautions

- Elderly persons, pregnant women, or these 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

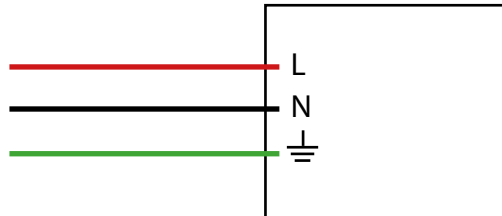
### 4. Electrical connection

A qualified electrician will have no problem installing this system with the provided wiring schematic and with the help of the circuit diagram mounted inside the respective control unit. According to the valid regulations, the electrical connection of the sauna has to be carried out by an authorised electrician. In case of a warranty claim, you are kindly requested to present a copy of the invoice from the electrician.

## Sauna Heater Manual

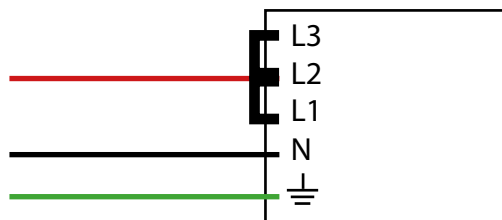
### 4.1. Basic Electrical Connection

Isolated Single Phase 230V  
Mains Power In



2.5 - 4kW  
Sauna Heater

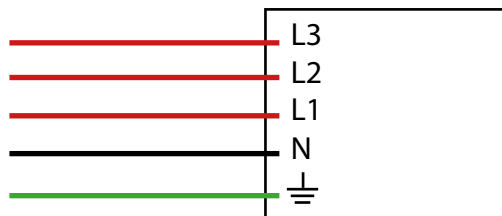
Isolated Single Phase  
230V Mains Power In



4.5 - 9kW  
Sauna Heater

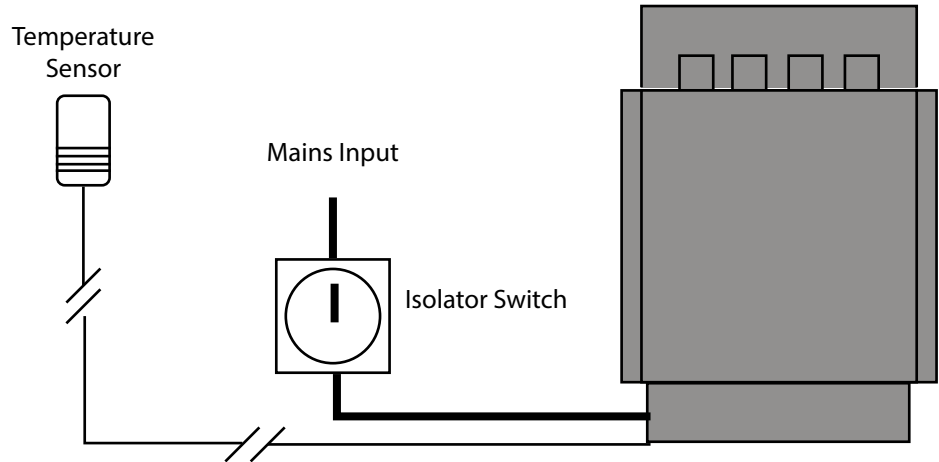
To wire 4.5 - 9kW heater single phase bridge  
live connections with copper bridges

Isolated 3 Phase  
400V Mains Power In



4.5 - 9kW  
Sauna Heater

### 4.2. Wiring Diagram

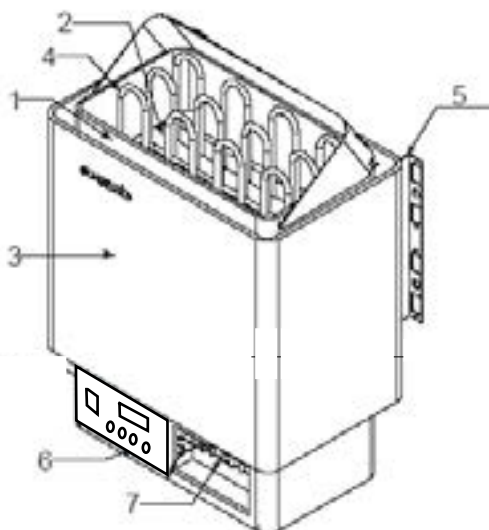


## 5. Sauna Heater Parameters

### BIC Series Sauna Heater Parameter

Model	Power (KW)	Voltage (V)	Phase (N~)	Current (A)	Heater Elements	Sauna Stone (kg)	Dimensinos LxWxH (mm)
OCS20i	2	230	1	9	2	12-14	410 x 280 x 570
OCS25i	2.5	230	1	11	2	12-14	
OCS30i	3	230	1	13	2	12-14	
OCS40i	4	230	1	18	2	13-15	
OCS45i	4.5	230/400	1/3	20/6.5	3	14-16	
OCS60i	6	230/400	1/3	26.4/8.7	3	16-18	
OCS80i	8	230/400	1/3	34.8/13	3	18-20	
OCS90i	9	230/400	1/3	39/14	3	18-20	

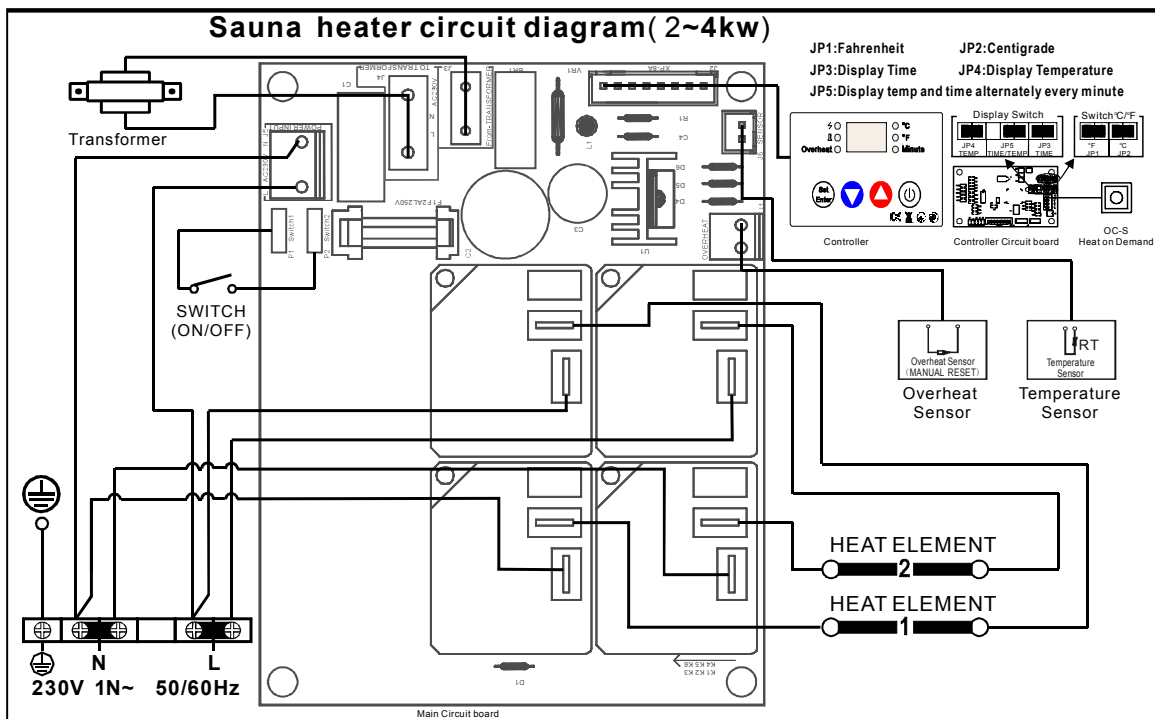
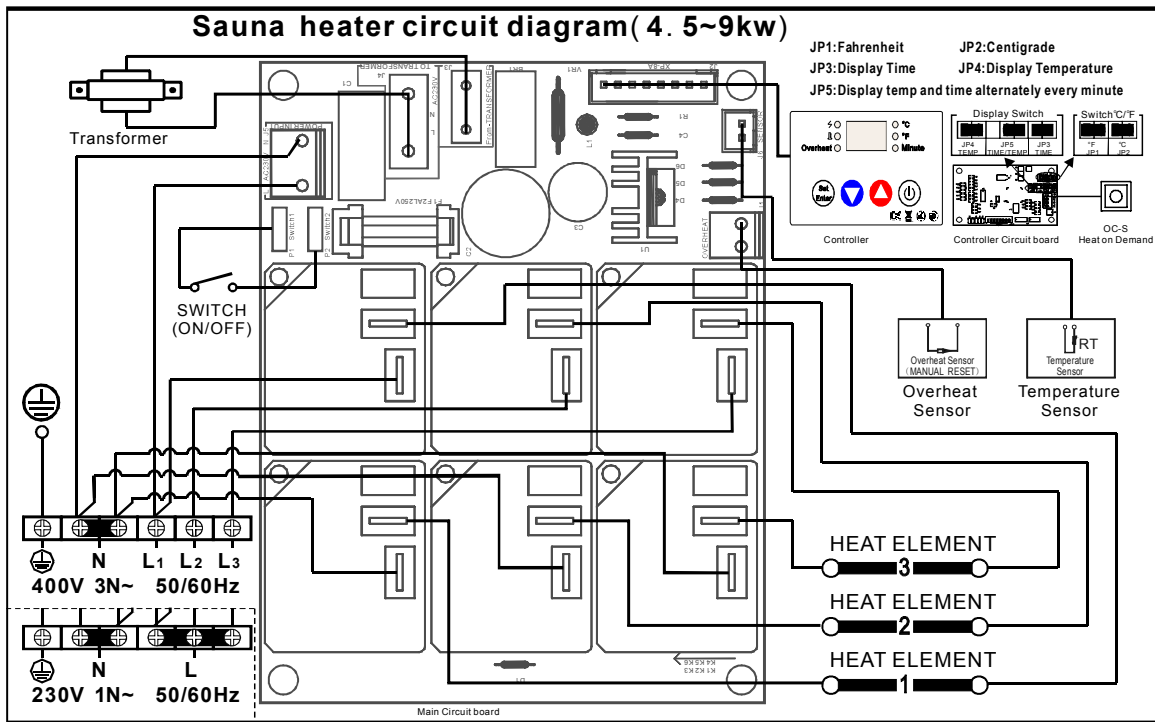
### 5.1. Sauna Heater Parts Description



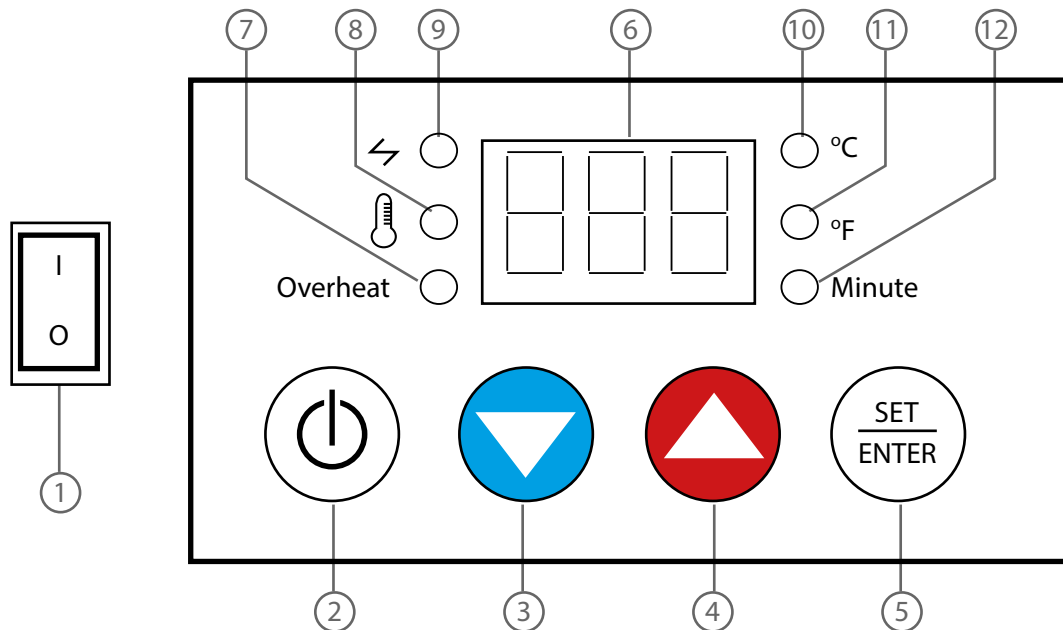
No.	Parts
1	Inner shell
2	Stone bracket
3	Shell
4	Heat element
5	Fix bracket
6	Control Panel
7	Terminals

## Sauna Heater Manual

### 5.2. Detailed Circuit Diagram



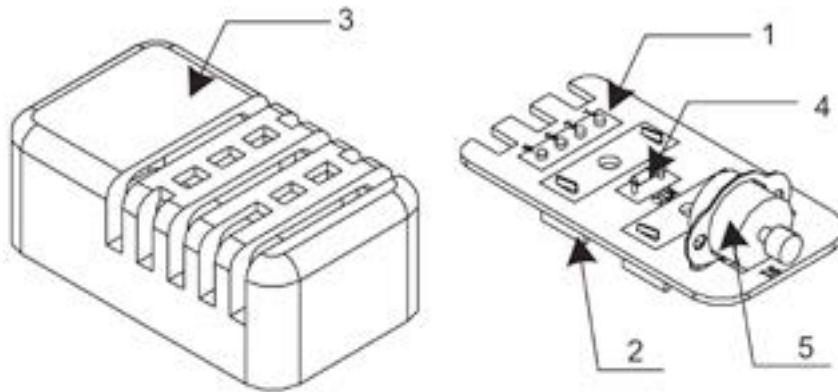
### 5.3. Control Panel Description



No.	Part	Description
1	Power Switch	To turn sauna heater mains power on/off
2	Control on/off button	To activate the control panel
3	▼	Decrease button
4	▲	Increase button
5	Enter / Set button	Press to set and enter the time heater is to be active
6	Digital Display	8 segment digital display to show time and temperature
7	Overheat LED	Indicator LED to signal that heater has overheated - reset manually inside the temperature sensor
8	Temperature LED	Indicator LED to signal the digital display is showing the temperature
9	Heating LED	Indicator LED to signal elements are heating
10	Degree Celsius	Indicator LED to signal temperature is being displayed in degrees Celsius
11	Degree Fahrenheit	Indicator LED to signal temperature is being displayed in degrees Fahrenheit
12	Minute	Indicator LED to signal time remaining is being displayed in minutes

### 6. Temperature Sensor

#### 6.1. Parts Description



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 off switch	When temperature in sauna room exceed 120 oC

#### 6.2. Resetting Overheat.

If Overheat is tripped (LED on the control panel is lit) remove white plastic cover from the temperature sensor and push the High Temperature cut off switch

#### 6.3. Temperature sensor parameters

Model	Detected scope	Cut off on high temperature	Size		
			L	W	H
OC-S	0~110	120	76	42	27



## Sauna Heater Manual

### 6.4. Installing the temperature sensor

- i. Install the temperature sensor as in the diagram opposite
- ii. Open the cover with a screwdriver
- iii. Fix the bottom of the temperature sensor on to wall with screw
- iv. Replace the cover.

### 7. Pre installation checklist for Sauna Heater

Confirm the model you have selected is suitable for your sauna room, please refer to the table below.

- i. Ensure the power supply is suitable for the sauna heater
- ii. Isolate the power supply before installation.
- iii. The installation position must comply with the minimum distance in the table below and in the diagrams on the following page
- iv. The minimum height of your sauna room must be 1900mm, please refer diagrams on following page
- v. Do not install the sauna heater on the floor or in a cabinet
- vi. Do not cover the sauna heater back with asbestos cement or similar material
- vii. The wire which enters the sauna room must be type 60245 IEC 66 HO7RN-F (BSEN 6141) please refer to table below
- viii. Do not install two or more sauna heaters in one sauna room.
- ix. The sauna heater becomes very hot when operating and must be guarded to protect incase of accidental contact, please see the sizes in the table below and also refer to charts below and on following page.
- x. The upper supporting screws must be fixed tightly, there is a 3mm gap between the screw head and wall (refer fig A, fig B), additional retaining screws should be inserted into the round holes to prevent the heater being lifted.

#### 7.1. Minimum Clearances

Model	Sauna Room			Min Distance from Sauna (mm)			Current (A)		Fuse (A)	
	Volume (m <sup>3</sup> )		Min height	Distance to shelf over 500mm	Ceiling	Floor	230V 1N~	400V 3N~	230v 1N~	400V 3N~
	Min	Max								
OCS20i	2	4	1900	50	1100	180	9	/	20	/
OCS25i	2	4	1900	50	1100	180	11	/	20	/
OCS30i	2	4	1900	50	1100	180	13	/	20	/
OCS40i	3	5	1900	50	1100	180	18	/	25	/
OCS45i	4	6	1900	80	1100	180	20	6.5	25	10
OCS60i	5	8	1900	150	1100	180	27	9	40	16
OCS80i	7	9	1900	200	1100	180	35	13	60	20
OCS90i	8	10	1900	200	1100	180	39	14	60	20

### 7.2. Installation for sauna heater

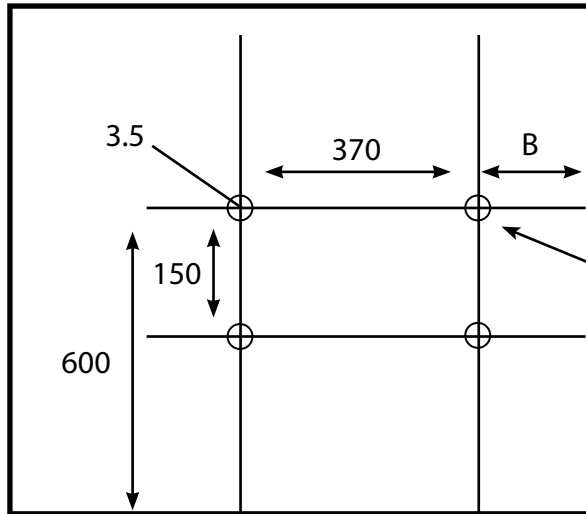


Fig. A

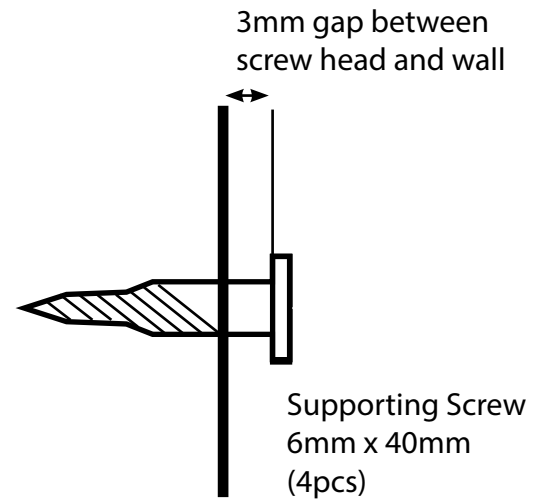


Fig. B

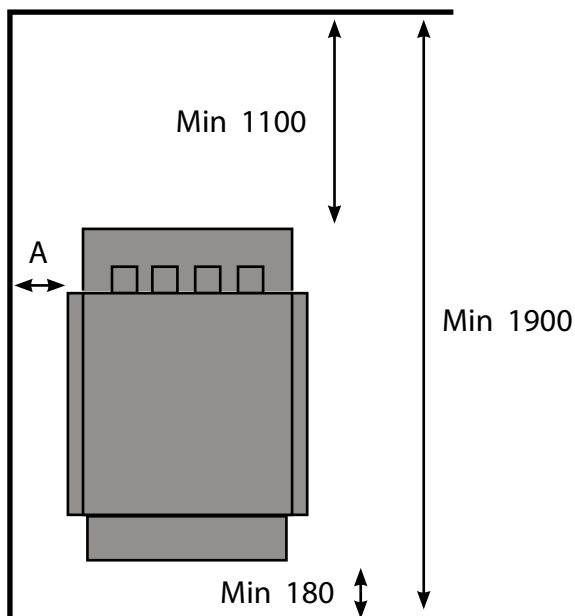


Fig. C

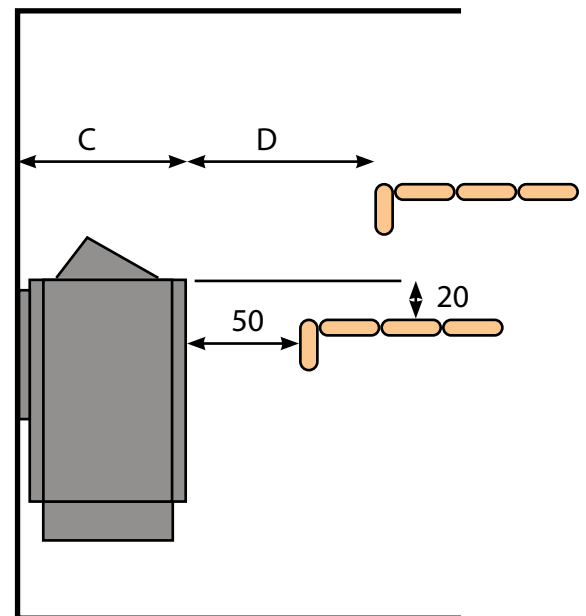


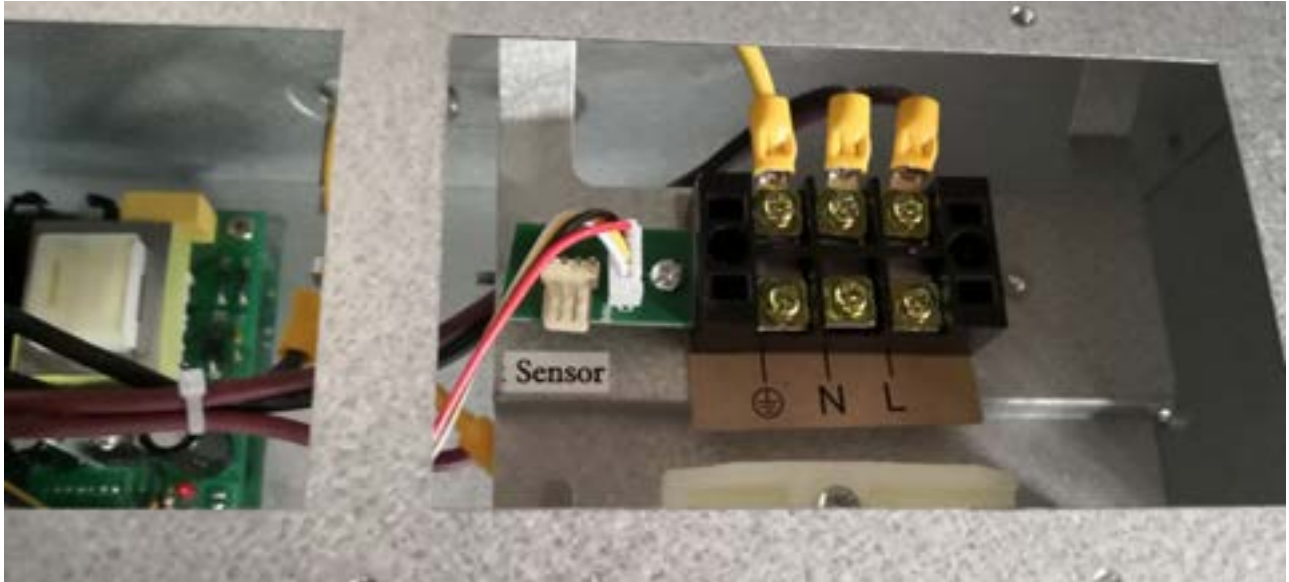
Fig. D

All sizes in mm

Model	Minimum Distance (mm)			
	A	B	C	D
OCS20i	50	70	280	100
OCS25i	50	70	280	100
OCS30i	50	70	280	100
OCS40i	50	70	280	100
OCS45i	80	100	280	100
OCS60i	100	120	280	150
OCS80i	130	150	280	200
OCS90i	130	150	280	200

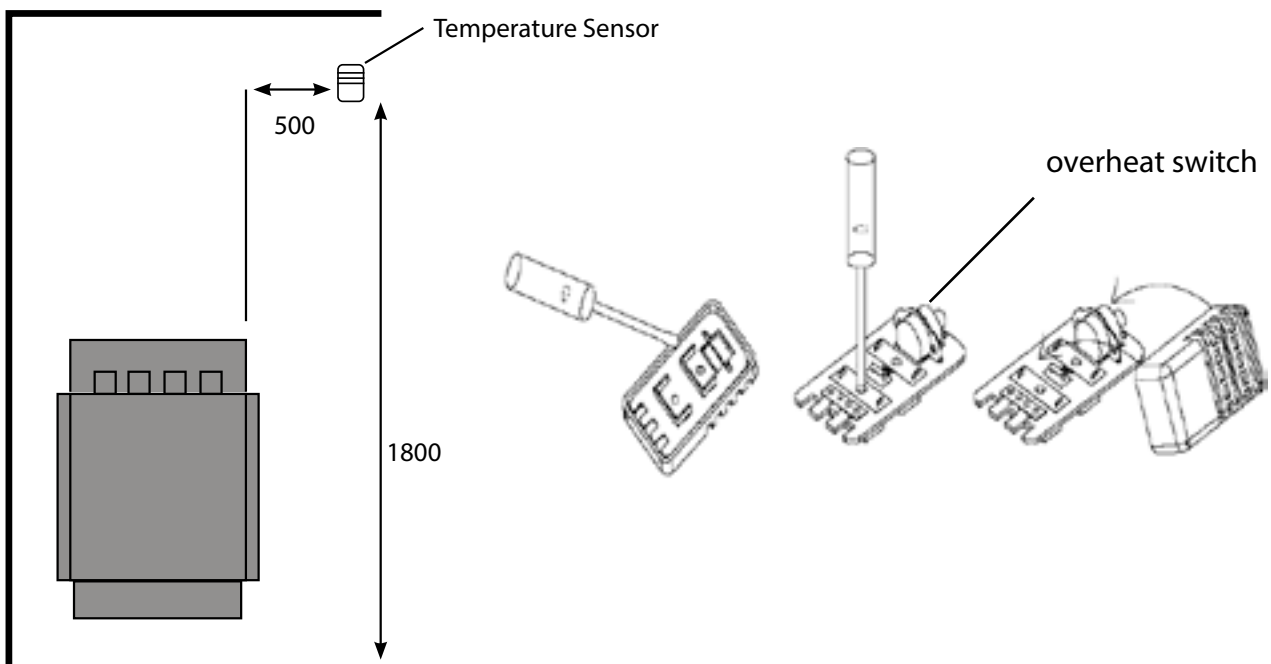
- i. Refer the installation drawings on the previous page, Fix screws and hang sauna heater on wall

### 7.3. Locating the temperature sensor input inside the heater



### 7.4. Installing the temperature sensor

- i. Install the temperature sensor as in the diagram below
- ii. Open the cover with a screwdriver
- iii. Fix the bottom of the temperature sensor on to wall with screw
- iv. Replace the cover.

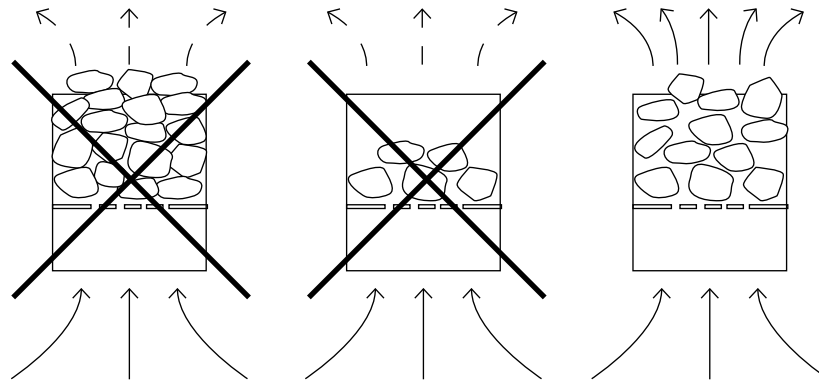


### 8. Sauna Stones

- i. Carefully check that none of the stones have white lines running through them, these are susceptible to exploding when hot so do not place these in the rock basket.
- ii. Note we recommend washing the stones thoroughly in water to remove any dust before the first use.
- iii. Put the larger stones at the bottom and smaller stones on top.
- iv. Take care not to pack the stones too tightly other wise 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.
- v. 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.

### 9. Testing and Operation

- i. Turn the power on to the heater using the IP rated rocker switch



- ii. Turn the heater on using the on/off button on the control panel
- iii. The default time will show as 60 minutes and 60 degrees Celcius.
- iv. Press the Set button to adjust the temperature, the red LED next to "°C" will light up and the main display will flash
- v. Use the red and blue up and down buttons to adjust the temperature in 1 degree increments (max temp 110 degrees Celsius).
- vi. Press the Set button again to adjust the time, the red LED beside "minute" will light up and the main display will flash
- vii. Use the red and blue up and down buttons to adjust the time in increments of 5minutes (max time 90mins)
- viii. Press the Set button once more to confirm the choices (time displays as default)

The heater holds a memory as long as it is only switched off by the on/off button on the control panel, however it is recommended that the heater is switched off using the rocker switch because the transformer will continue to absorb approximately 8watts per hour.

## 10. Trouble shooting Guide

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

Trouble description	Cause	Solutions
Overheat LED is on	1. The high temperature cut off has been tripped	1. Remove the plastic casing around the temperature sensor and press the black button (you should hear a click) to reset the overheat sensor.

### 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.

#### 10.1. 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.

#### 10.2. 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.

#### 10.3. Maintenance Checks

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

#### 10.4. 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

## Sauna Heater Manual

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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.

### 10.5. Sauna Cabin

- i. Ensure all signage (safety and usage) is in place and in a readable condition.
- ii. Check the benches are secure and have no signs of deterioration, if benches have become loose ensure they are tightened correctly.
- iii. If there are any splinters on the bench sand over lightly until they have been removed.
- iv. Any major damage to the benches should be reported to the supplier and further advice will be given.
- v. Ensure the timbers surrounding the heater have not become charred. Any offending timber slats should be replaced in a reasonable time period.
- vi. 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.
- vii. 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.

## 11. 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 call 01902 655425 or 01902 871127 technical help line.