



oceanic

SAUNA + STEAM



Infrared Heaters and Controls Manual

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Table of Contents

Safety Precautions	Page 3
System Overview	Page 4
Sauna Layout	Page 5
Infrared Heaters	Page 6
Heater Diagram	
Heater Clearance Distances	
Installing heaters	
Backrests	Page 9
Control Box	Page 10
Temperature Sensor	Page 10
Installation	
Resetting Overheat	
Circuit diagram	
Accessories	Page 12
Lighting	
Speakers	
Fan	
Keypad	Page 13
Functions	
Keypad Installation	
Keypad Operation	
Mini Steam Generator	Page 15
Mini Steam Generator Safety Precautions	
Parameters	
Parts Description	
Installation	
Mini Steam Generator Operation	Page 17
Mini Steam Generator Maintenance	Page 17

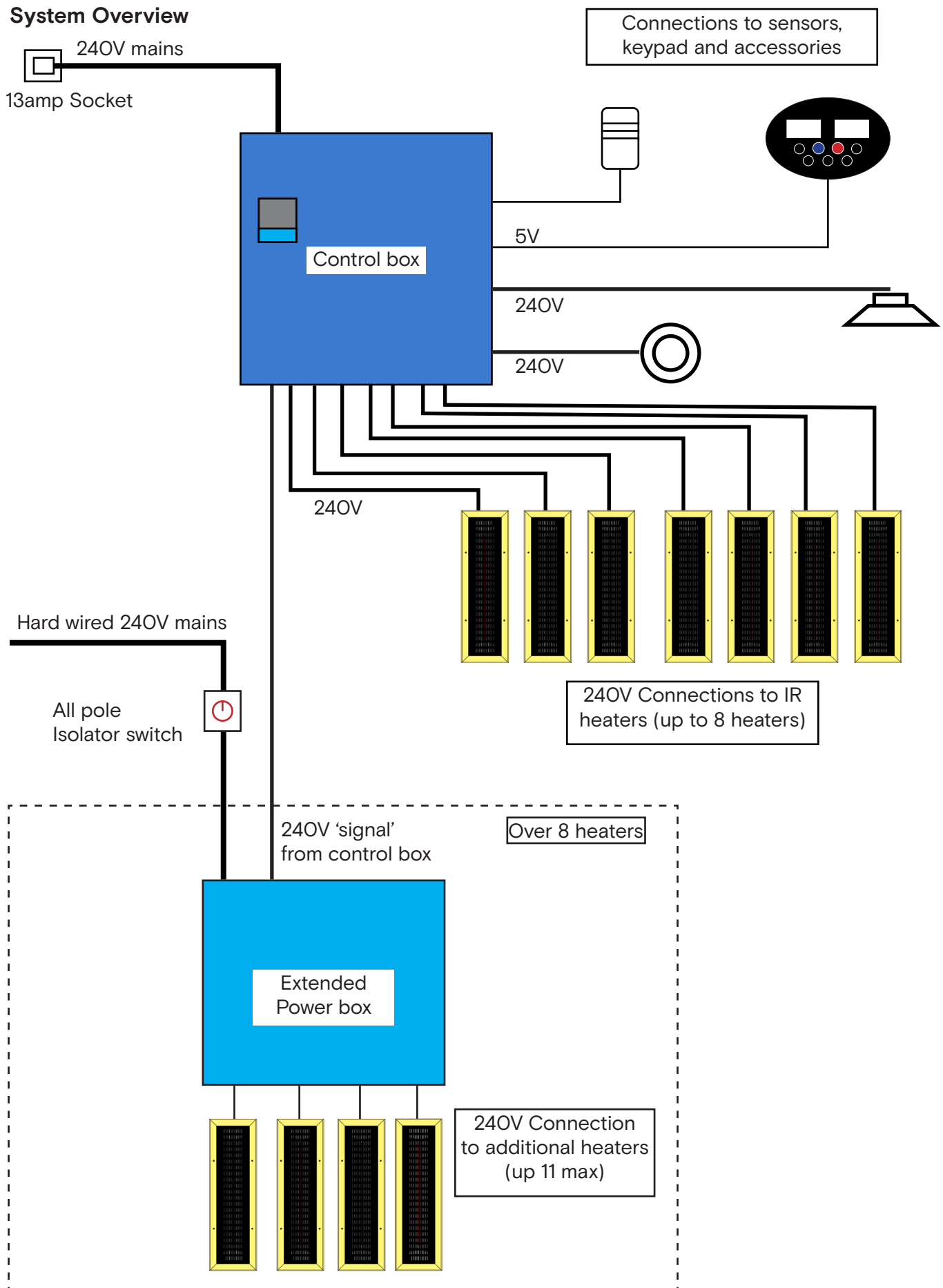
Thank you for purchasing Oceanic Infrared Heaters and Control System. It is important to read the following instructions carefully before installing this equipment into your sauna. If you are unsure about anything please contact someone from either the Oceanic Saunas sales team or the technical department before continuing.

Safety Precautions

Please read these precautions before installing the sauna equipment. If you have any questions or concerns ask a member of staff before using the sauna.

- Do not cover the heaters as this could cause a fire.
- Do not touch the heaters, they are very hot while the sauna is on.
- Minimum clearance distances must be followed during installation to avoid risk of fire.
- Do not wire the infrared controls on a multi plug or multi socket extension lead.
- Not to be used in combination with any other sauna heaters.
- Read operating instructions before turning on the 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 supervisor 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.

System Overview



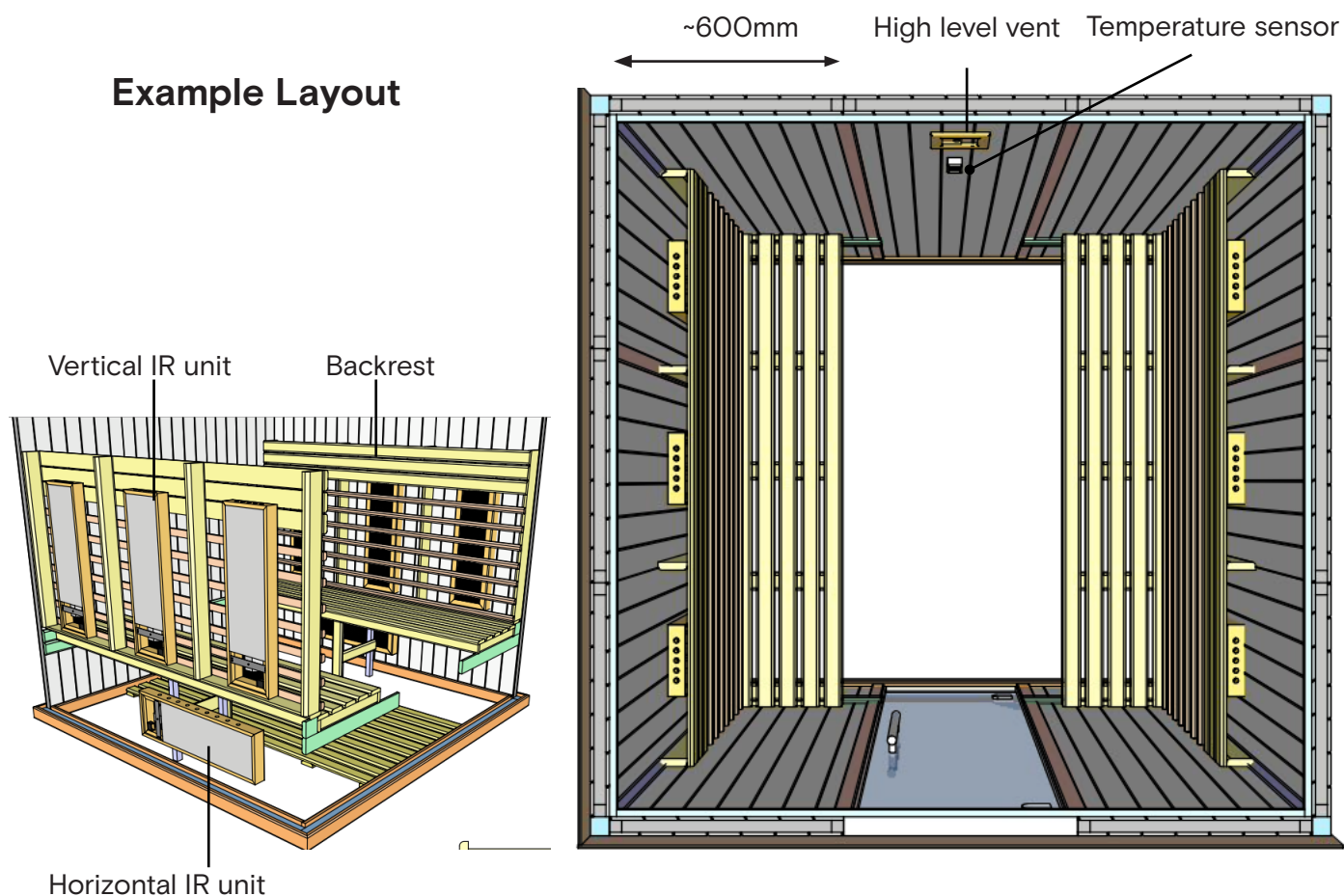
Sauna Layout

Design the layout of the sauna before attempting any installation of the heaters. Consider the spacing of the heaters based on the number of users, width of benches, backrests and space limitations. Take a look on the Oceanic Saunas website for resources including videos on how to build an infrared sauna. A wide range of infrared sauna cabin sizes and layouts can be seen in the product range, we recommend finding a model with dimensions closest to your space to help work out the number of heaters you require. Sauna timber, parts, bench, backrest and floor mat kits are available to purchase separately on the website.

Points to consider include:

- Maximum power requirement – upto 8 x 300W heaters can run from standard control box via a 13amp socket. For larger cabins requiring over 8 heaters an additional power box must be used, this must be hard wired via an isolator switch.
- Power cables to run behind the heaters typically up to a control system in an accessible location above the sauna or a cupboard / plant room adjacent. 3m, extensions available.
- Temperature sensor location, max cable length 4m.
- Keypad for control system must be located outside the sauna, max length 10m.
- Air vents at high and low level, kits available.
- Door must open outwards

Example Layout



Infrared Heaters

Two types of infrared heater are available, vertical (above bench) and horizontal (below bench) units. Both units incorporate a single 300W full spectrum infrared element, reflector and wiring socket housed in a timber surround with a perforated protective metal cover. Each unit is individually plugged into the control box via a 3m 240V cable supplied. If a longer length of cable is required please contact the sales team and specify the correct length.

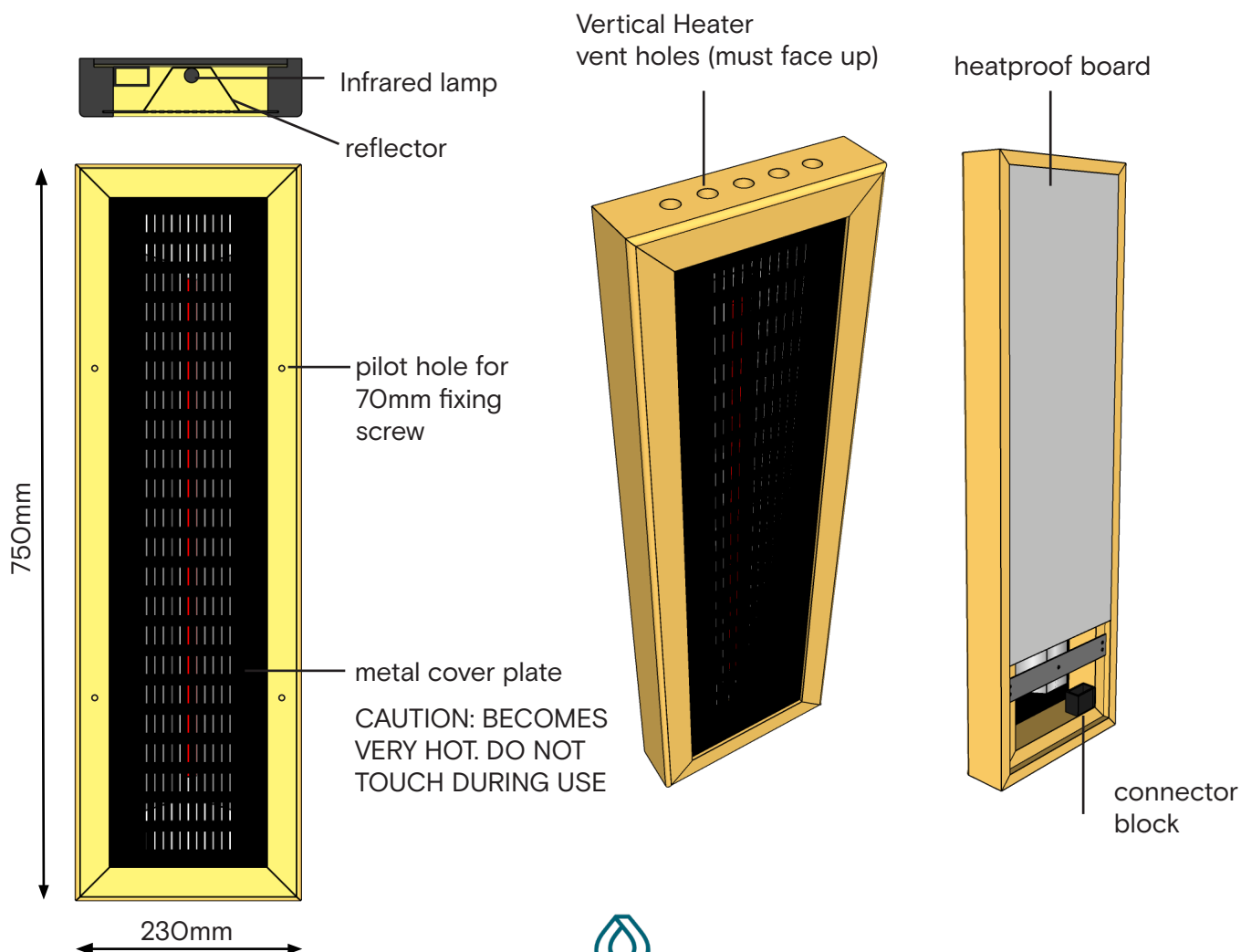
The number of heaters required will depend upon the dimensions of the sauna and number of seating positions. More detail on sauna layout to follow.

CAUTION: RISK OF INJURY - the metal cover on the front of the infrared unit will get very hot and must not be touched during operation. The caution plate must be installed in a visible location inside the sauna to warn users of this risk.

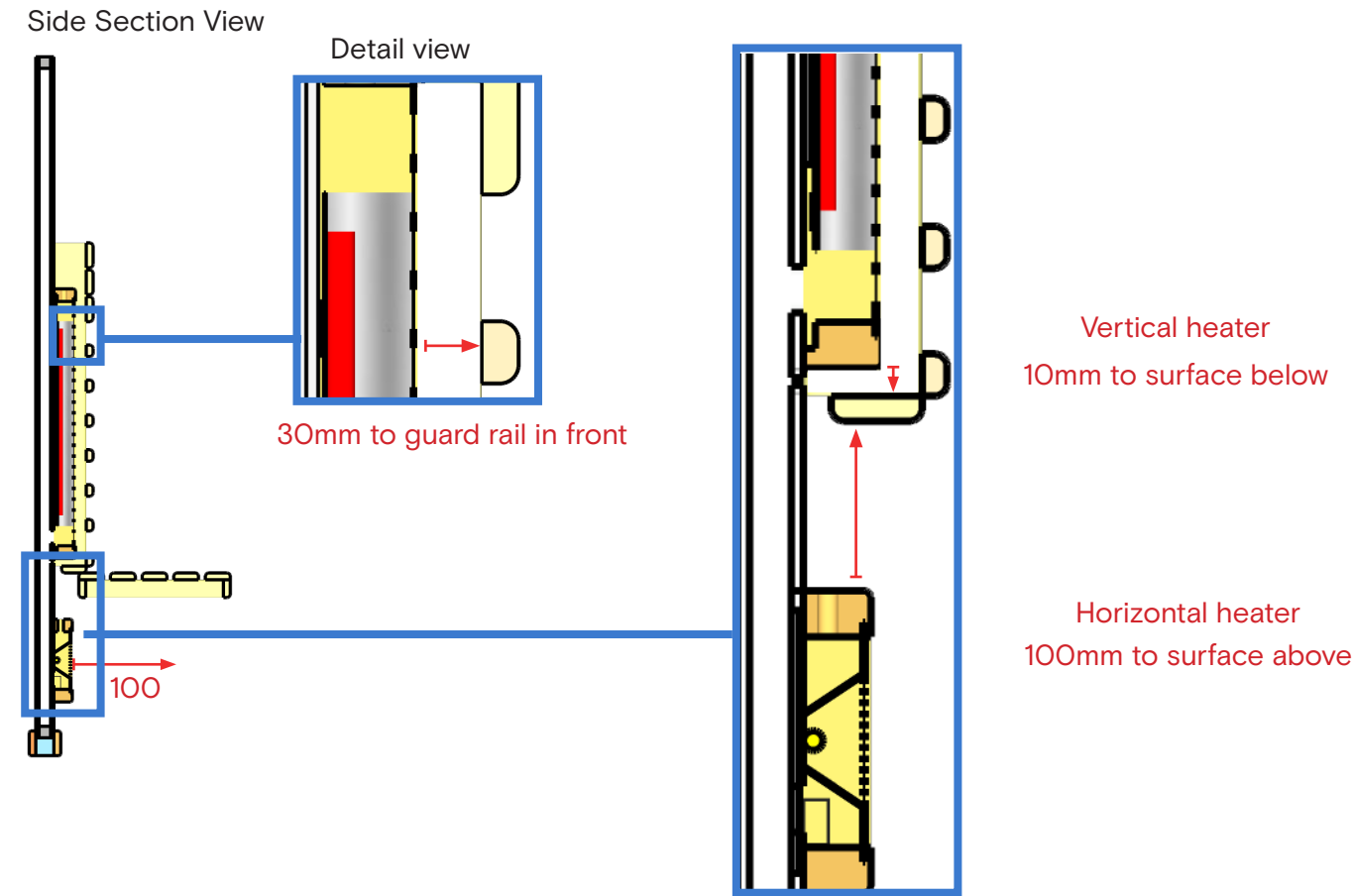
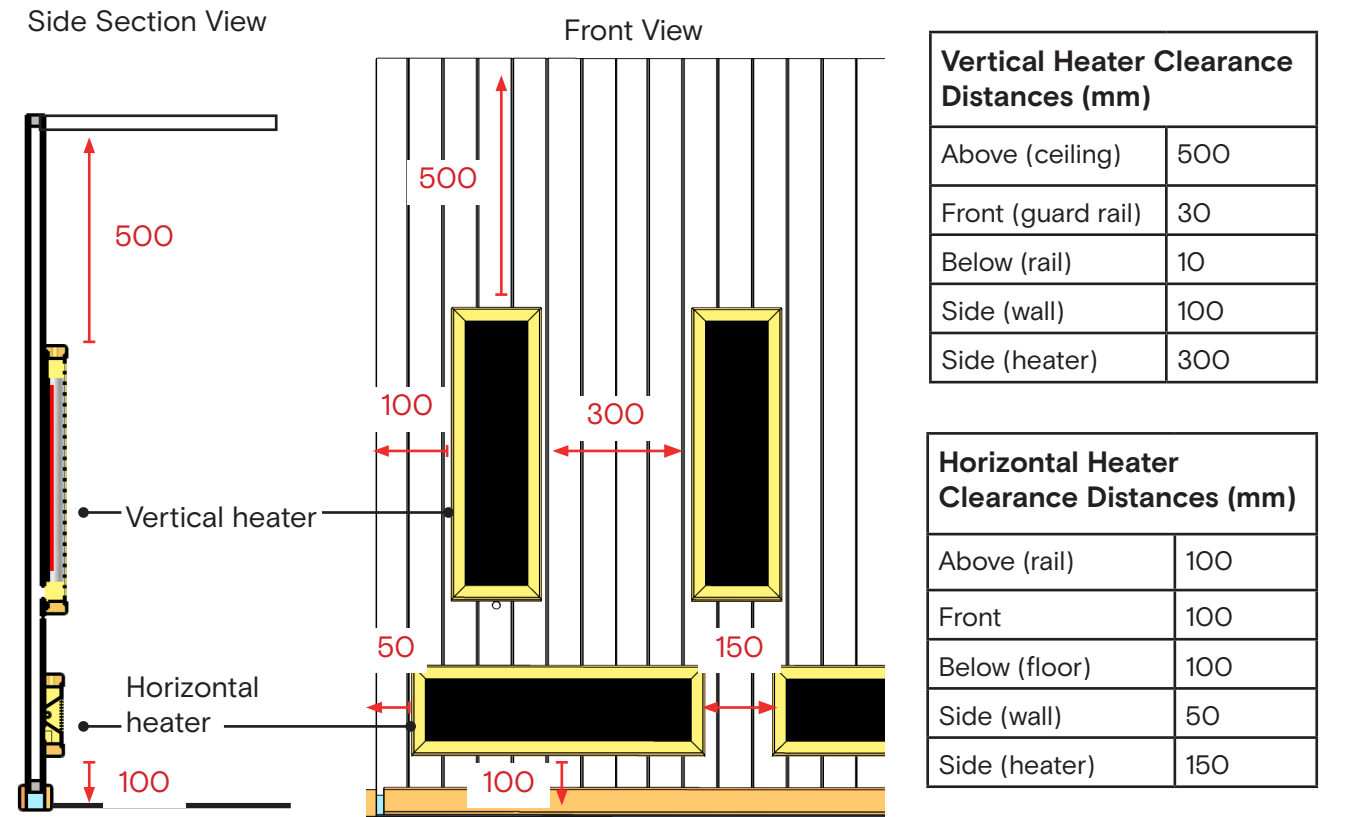
CAUTION: RISK OF FIRE - Do not cover the heater. Do not enclose the heater. Minimum clearance distances must be followed when installing the infrared heater units to prevent overheating and fire. The infrared heaters are designed to be surface mounted on the internal walls of the sauna cabin. The front of the heater must not be covered or enclosed except for a protective guard/backrest made from timber slats. Good airflow around the heater is required to prevent overheating.

Oceanic infrared heaters must not be used in combination with any other sauna heater in the same sauna. Use with any other form of heating risks causing a fire and damaging the infrared units.

Heater Diagram

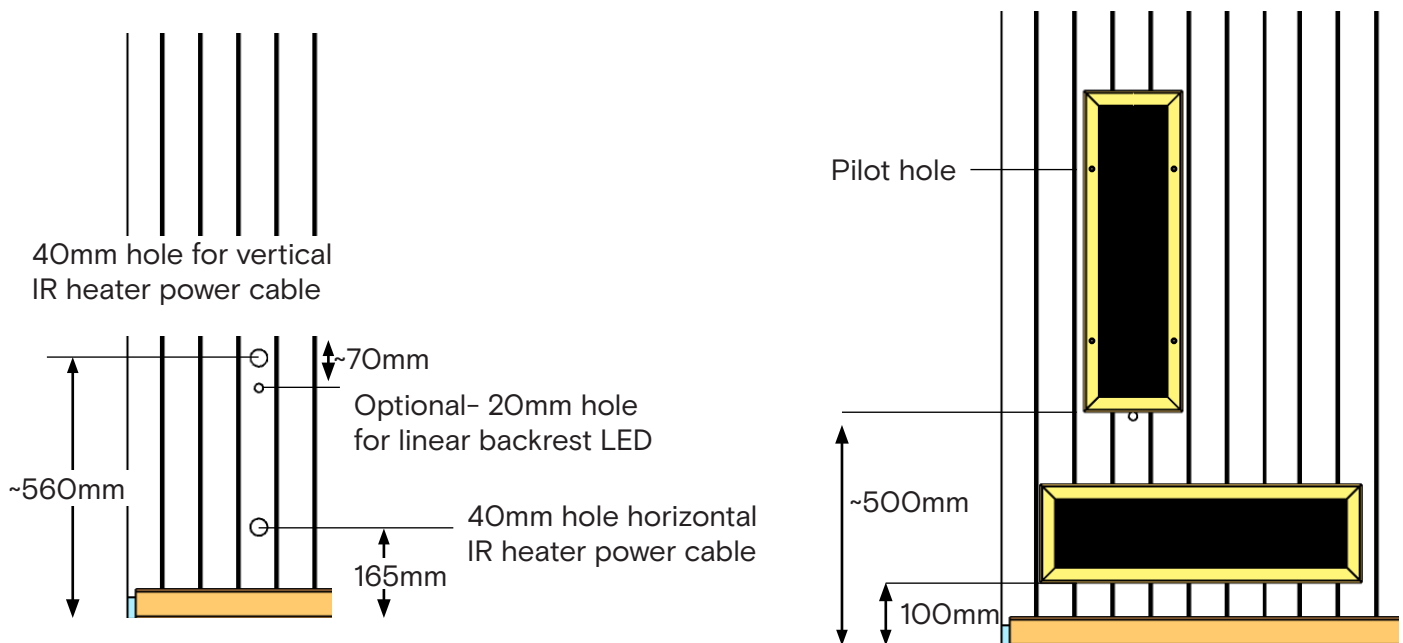


Heater Clearance Distances

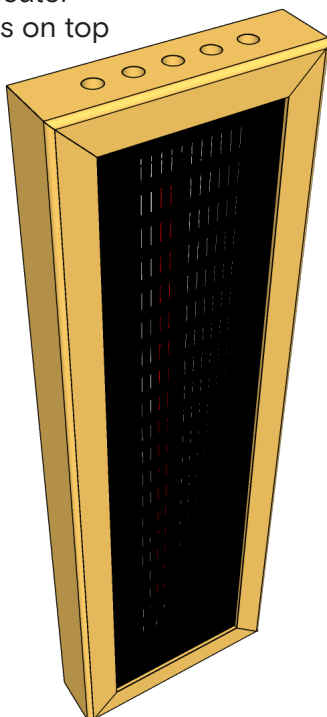


Installing heaters

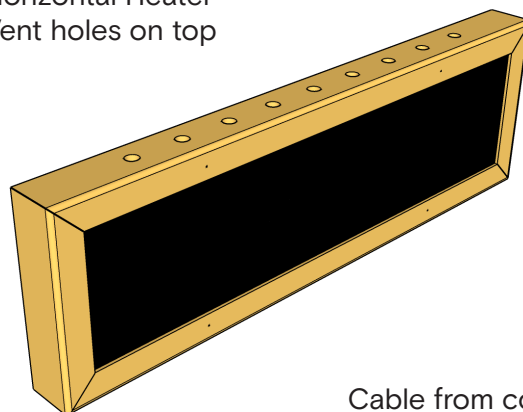
- Vertical heaters are positioned above bench around 500mm above floor level, centre of the 40mm cable hole should be 60mm above the lowest part of the heater unit.
- Under bench horizontal heaters are positioned beneath benches around 100mm above floor level. Centre of the 40mm cable hole should be 65mm above the bottom edge of the heater unit.
- Measure, mark and drill 40mm hole through the interior cladding (see diagram below for heights)
- Run 3m power cable through the hole.
- Connect the power cable plug to the socket on the rear of the heater unit.
- Ensure the heaters are facing the correct orientation with the vent holes on the top.
- IR heater units have four pilot holes pre-drilled into the front of the housing. Use four 70mm screws to fix the heater units to the wall, cover the screws with screw caps supplied.



Vertical Heater
Vent holes on top



Horizontal Heater
Vent holes on top



Cable from control box to heater



Backrests

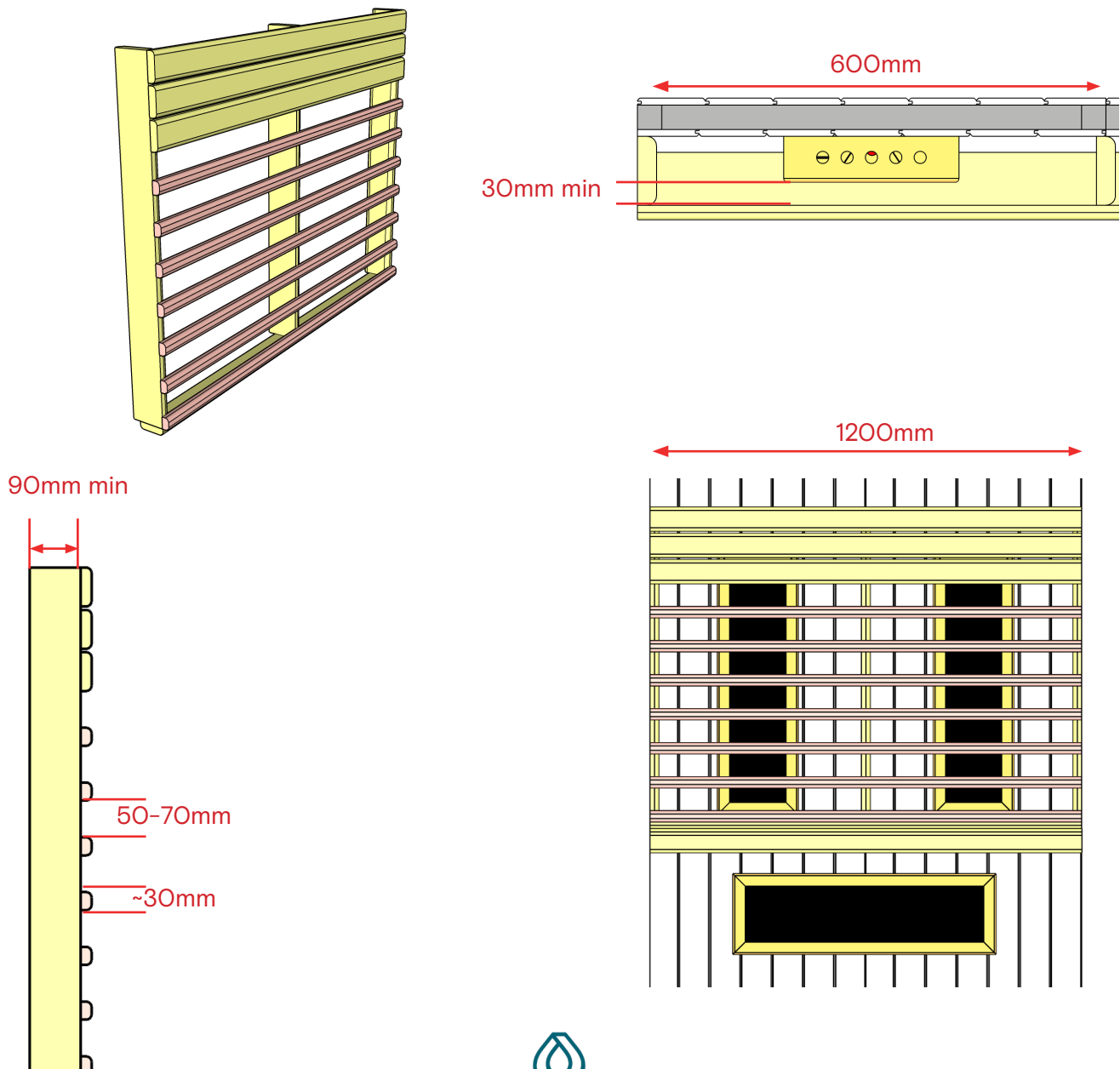
Oceanic infrared saunas are supplied with a backrest to be installed in front of the vertical infrared heaters above the benches. A range of Oceanic infrared backrests are available to purchase separately for customers building their own bespoke saunas, these can be modified (cut down).

If you are building your own backrest the spacing of the slats is important to prevent overheating and prevent accidental contact with the heater unit. Use the following specification:

- Gap from infrared heater to timber slat: 30mm.
- Minimum spacing for horizontal slats in front of the infrared lamp: 50mm, max spacing 70mm.
- Width of the slat : 30mm

The backrest must be installed so that it cannot be removed by user. I.e. fixed using screws

Typical spacing along a wall would be one vertical heater every 600mm, i.e. one behind each seating position. For horizontal heaters the spacing would be one per 2-3 vertical heaters, i.e. 1 ever 1200-1800mm



Control Box

The control box contains the relays for switching the IR Heaters on/off along with the main circuit board for controlling inputs from the keypad, sensors etc. This box is typically mounted on top of the sauna but can also be located on the side wall (externally). The location will affect the required cable lengths to the heater units.

The domestic unit can be plugged into a 13amp socket as the total power is limited to 8 units (2400W). The commercial unit must be wired via an isolator switch and when combined with the additional Power Box can power up to a further 11 IR heater units (total 5700W)

Temperature Sensor

The temperature sensor is supplied with a 3m 4pin cable and should be located inside the sauna at a height of around 1800mm from floor level and not directly in front of or above an IR heater. Recommended cable hole size is 20mm to allow for the connector.

Installation

Carefully remove the outer plastic cover, it may help to use a flat head screw driver to prise the casing away from the circuit board.

Fix to the wall using a 30mm screw through the hole in the circuit board

Replace plastic cover.

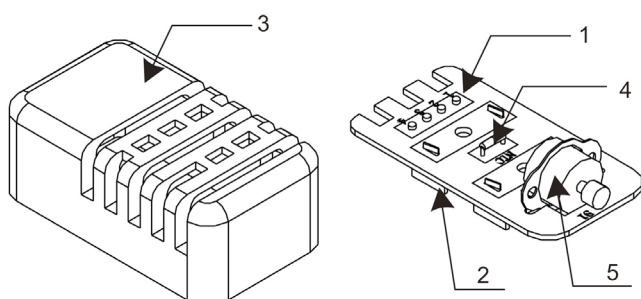
Run cable back to the control box and plug into the accessory input labelled 'Sensor'

Resetting Overheat

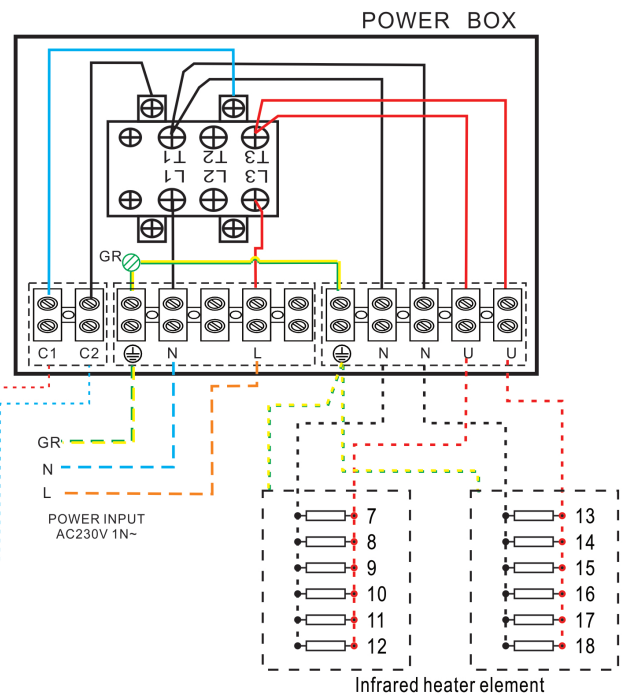
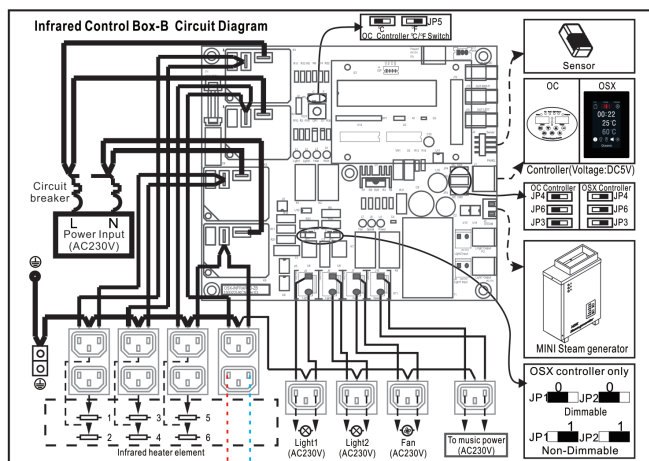
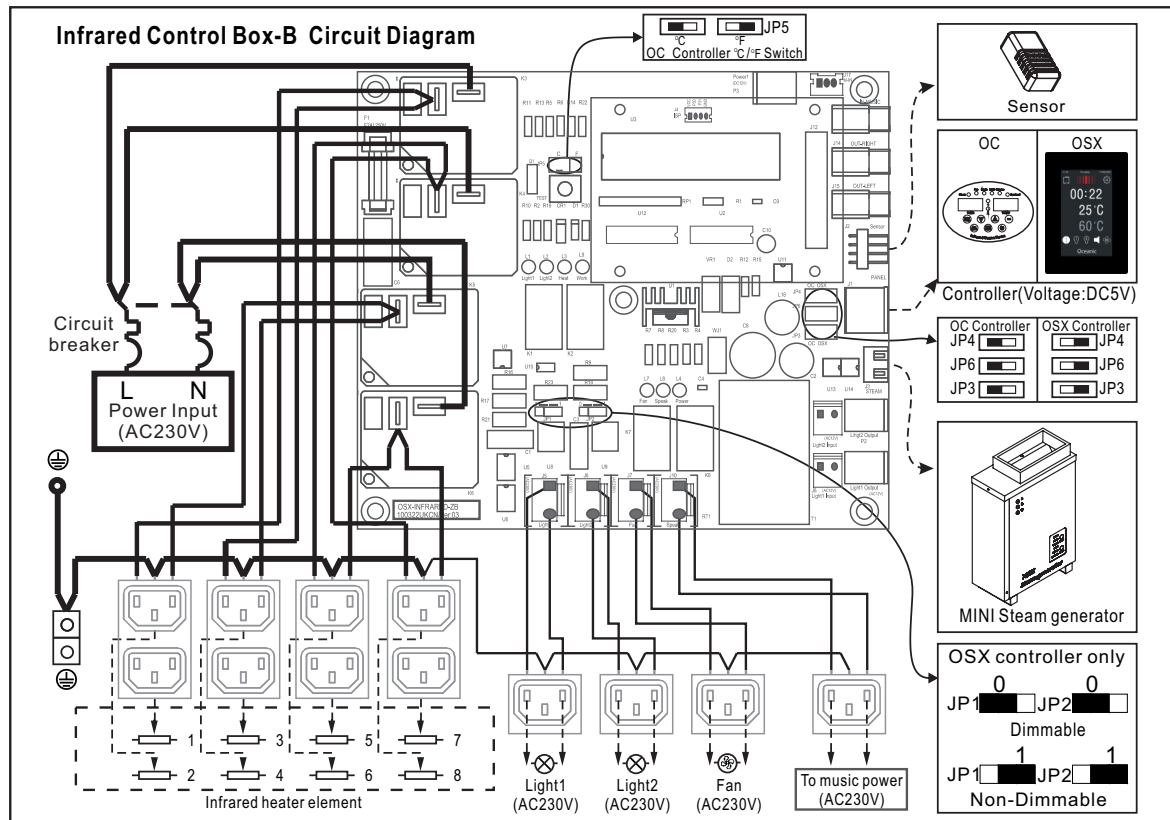
If Overheat is tripped (LED on the control panel is lit) remove white plastic cover from the temperature sensor and push the High Temperature cut off switch

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

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



Circuit diagram



Accessories

There are four 230V/100W outputs for accessories that can be switched via the keypad; Lighting 1, Lighting 2, Fan and Speakers.

Lighting

Connect the 12V transformer to the Light 1 or Light 2 output on the control box via an IEC lead supplied.

Wire the positive and negative cables into the relevant terminals on the transformer.

Downlights purchased from Oceanic typically include a 12V 60VA transformer which can power up to 2No downlights per transformer when each light is fitted with a 20W light bulb. It is possible to run a total of 4No downlights via one of the lighting outputs on the control blue box. Follow installation instructions supplied with the light fitting.

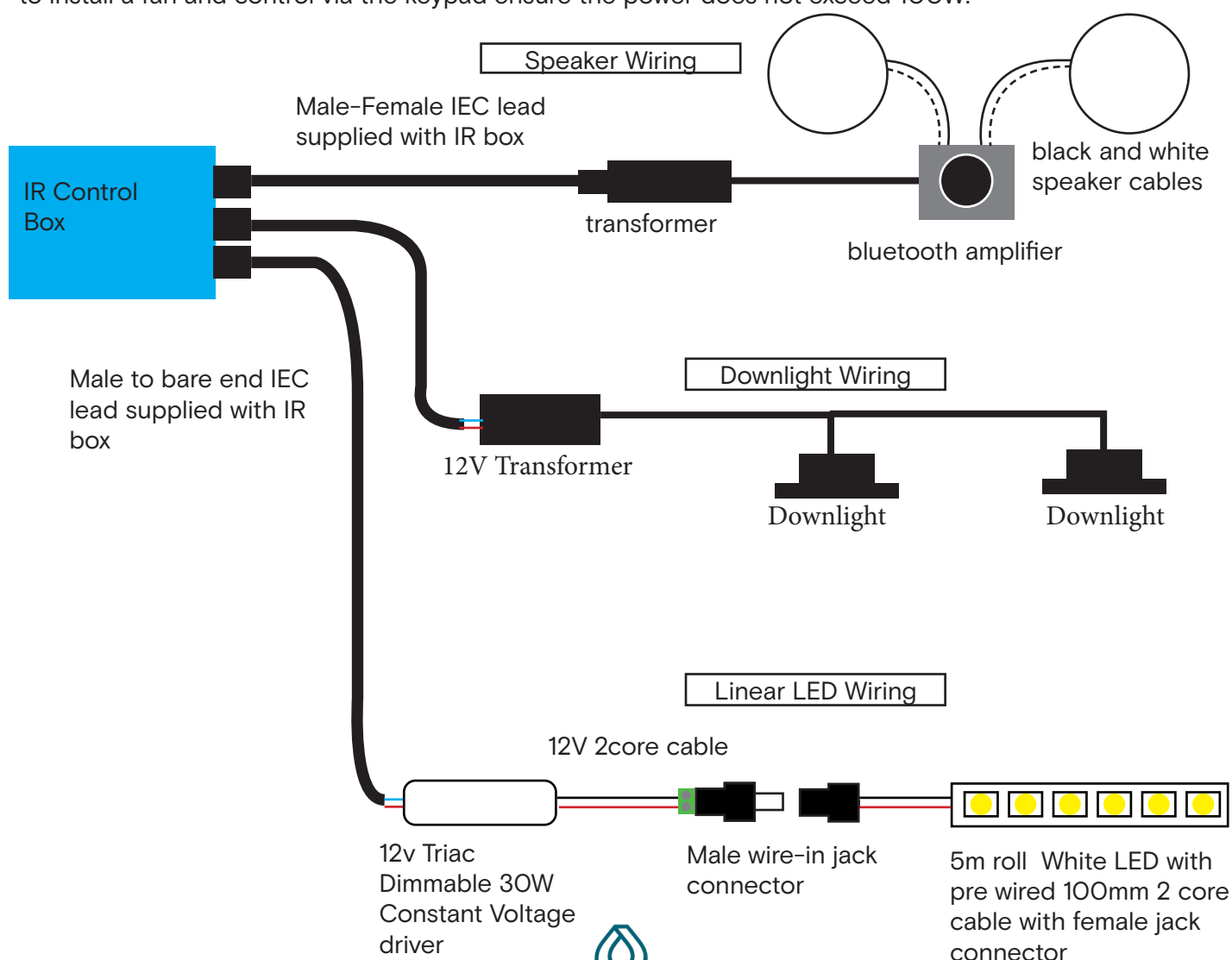
For linear LED tape connect the 12V LED driver to either Light1 or Light2 output using the IEC lead provided. Wire the linear tape as shown in the instructions for the linear lighting kit.

Speakers

Plug the male/female IEC lead directly into the transformer for the bluetooth amplifier, continue the wiring of the speakers as per the speaker instructions using the black and white speaker cables provided. Connection to the amp can be made via an Aux input or connection to bluetooth.

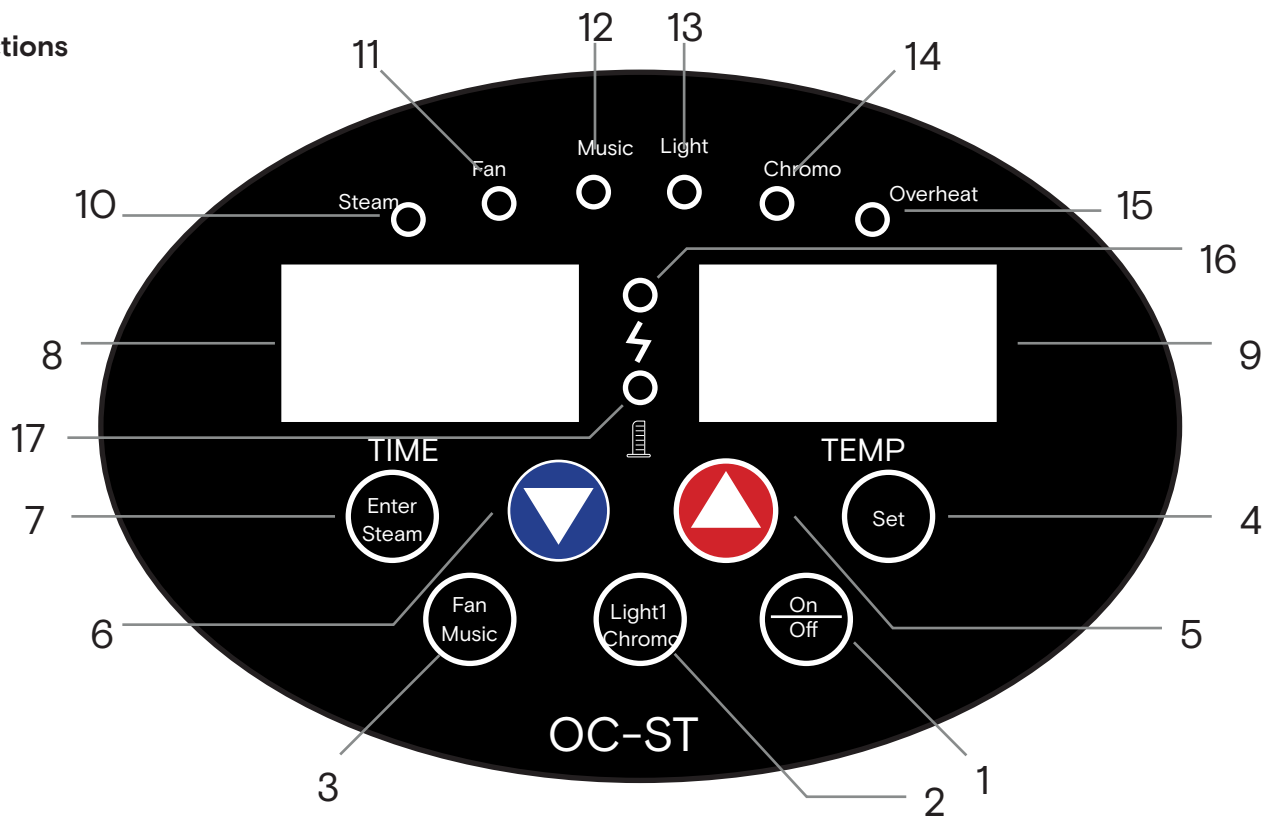
Fan

A fan is not a requirement on Oceanic saunas that have built in vents for natural ventilation. If you intend to install a fan and control via the keypad ensure the power does not exceed 100W.



Keypad

Functions

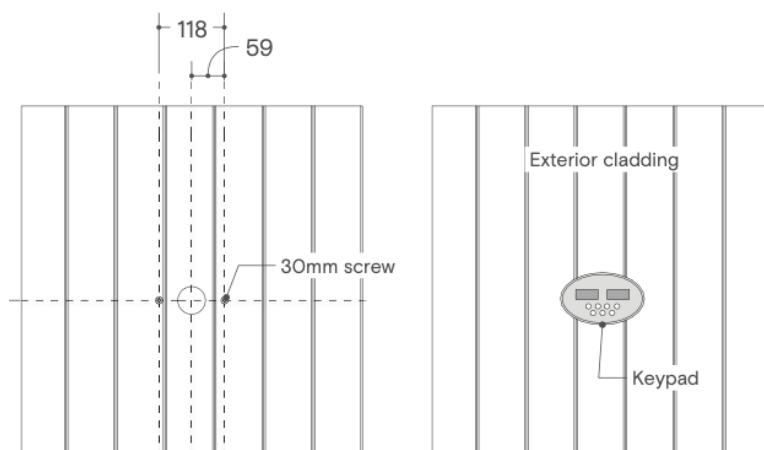


No	Part	Description
1	On/off	Push to turn the equipment on or off
2	Light	Push to turn on the light in the room.
3	Fan / Music	Push once to turn on fan (not required) Push twice to turn on speakers
4	Set	Preset time and temperature - (you must then press 'Enter' to save settings)
5	/\	Increase button
6	\	Decrease button
7	Enter / Steam	Press Enter to save settings. Steam function not required
8	Time display window	Display the work time of the steam generator
9	Temp display window	Display the detected temperature of steam room
10	Steam	Not Used
11	Fan	Indicated the Fan is active (not required for Oceanic IR sauna)
12	Music	Indicated the Speakers have been turned on
13	Light 1	Indicated the Light is turned on
14	Chromo	Light to indicate secondary lighting circuit
15	Overheat	Indicator LED for overheat - turn machine off and wait for 1 hour before switching back on, if problem persists contact the seller.
16	L7	Indicates the detected temperature is lower than the preset temperature and sauna heater is heating.
17	L8	Indicates the detected temperature is higher than the preset temperature and the sauna heater is idling.

Keypad Installation

Keypad must be fitted outside the sauna. Depending on the design of your sauna it may be necessary to locate the keypad on a nearby wall rather than the exterior of the sauna. Max cable length 5m (10m control cable can be ordered separately) back to the control box.

- Mark a center point at a comfortable height to use the keypad, i.e. 1600–1800mm above floor level.
- Drill 50mm hole through exterior sauna cladding.
- 30mm mounting screws should be located 59mm either side of the centre of the hole
- Feed control cable through the hole up via the void between interior and exterior cladding onto ceiling.
- Connect keypad to cable and slide down onto the protruding screw heads



Keypad Operation

- Once all the cables have been correctly connected to the control box and the box and the power cable has either been plugged into the wall socket (domestic) or hard wired to the isolated mains supply (commercial) you can press the 'On/Off' button on the keypad to turn on the infrared sauna.
- The keypad should now display a time and a temperature and L7 should be orange to show that the lamps are warming up. The time displayed is the length of time that the sauna will stay on for before turning itself off. The time can be increased or decreased as described below. The temperature shown is the current air temperature inside the cabin, the maximum air temperature can be increased or decreased as described in point iv.
- Adjusting the time. Press the 'Set' button once. The time will now flash. Increase or decrease the time using the blue and red arrow keys. Once the correct time is flashing press the Enter key to save the selection. If you do not press the Enter key the time will not be saved and will revert to the previous setting. The maximum time you can select is 1 hour for a session.
- Adjusting the temperature. Press the 'Set' button twice. The temperature will now start flashing. Increase or decrease using the blue and red arrow keys. Once correct press the 'Enter' button to save. The maximum air temperature is 60 degrees for the infrared sauna.
- The keypad will remember the time and the temperature that you selected on your previous session when you turn the sauna on.
- To activate the other functions such as turning on the lighting and speakers, press the associated key the correct number of times as described in the table on the previous page. The associated LED will light up to show you that the light or speakers are on.
- Overheat light. All saunas are fitted with a built-in thermal cut-out that trips automatically if the temperature in the sauna rises above a safe level. The reset button is located in the remote thermostat. If you cannot ascertain what caused the increase in sauna temperature, do not attempt to reset the sauna, but either notify Oceanic Saunas Ltd, or call in a qualified electrician.

Mini Steam Generator

The mini steam generator is an optional accessory for domestic infrared sauna cabins only, not for use in commercial cabins. It is powered and controlled independently from the infrared heaters but can be run simultaneously as the IR heaters are hermetically sealed. The generator is filled manually from above, there is a manual drain valve if you need to drain the generator.

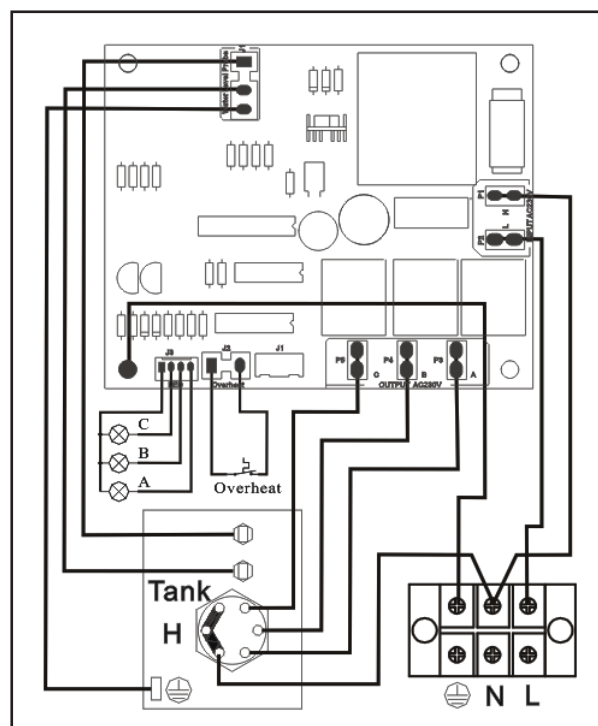
Mini Steam Generator Safety Precautions

- The equipment must be installed vertically
- Stop pouring water into the boiler when the high level LED light (A) turns on. Don't let the water reach the holes in the top cover. You can release water using the valve at the bottom.
- If overheat indicator LED light turns on, cut off the power supply and do not turn back on until the problem has been resolved. If in doubt please contact our technical team.

Parameters

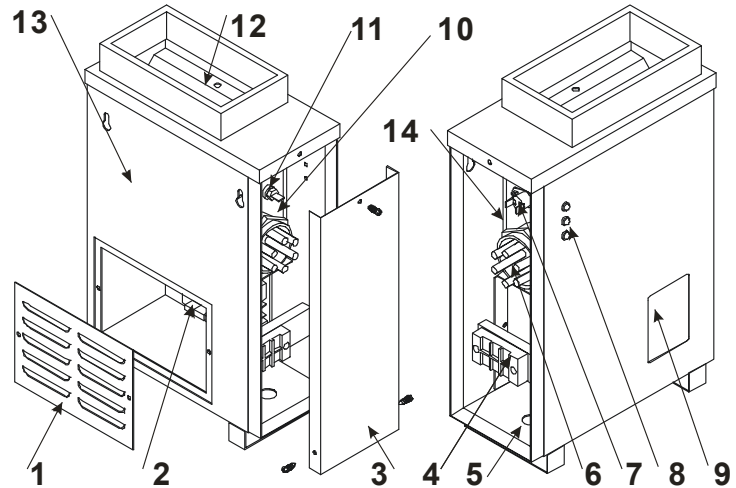
Model	Power (W)			Voltage (V)	Current (A)			Dimensions LxWxH (mm)
	Class 1	Class 2	Class 3		Class 1	Class 2	Class 3	
OC-Mini-1	500	750	1000	210-240	2.1-2.3	3.2-3.6	4.2-4.8	220 x 100 x 340
OC-Mini-2	1000	1500	2000	210-240	4.2-4.6	6.4-7.2	8.4-9.6	220 x 100 x 340

1.1. Mini Steam Generator Circuit Diagram



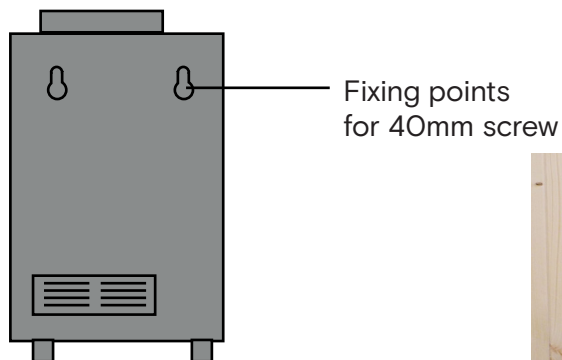
Parts Description

No	Description
1	Back cover
2	circuit board
3	Side cover
4	Terminal
5	Power entry
6	Heat element
7	Overheat switch
8	Water level indicator LED
9	Control panel
10	SUS tank
11	Water level probe
12	Steam outlet and water inlet
13	Shell
14	Heat preservation cotton



Installation

- Sauraium Coat application – See separate instructions.
- Position the steam generator on a blank wall panel at low level 150 – 300mm above ground level.
- Fix to cabin wall using 40mm Screws and the locating fixing points on the back of the heater.
- Drill hole through the panel as appropriate height for cable to be inserted.
- Connect the steam generator to a 13Amp socket with RCD protection.



Mini Steam Generator Operation

- i. Once the mini steam generator has been installed correctly onto the wall and the power cable connected to a 13amp socket the unit is ready to use.
- ii. Turn the power on at the 13amp socket and press On/Off button on the Mini Steam Generator
- iii. Note that the LED C should be lit to show the tank is empty
- iv. Fill the generator with water from above using a water jug until A is lit. Do not overfill the generator as the water may start to spit out of the top when heating. If this occurs manually drain some water out into a container using the drain valve at the bottom of the generator.
- v. The generator should now start to heat the water and the 'Heat' LED should be lit
- vi. You can adjust the amount of steam using the Power button to set the generator to 500W, 750W or maximum power 1000W.
- vii. Once the water level drops to C you can add more water to the generator. Be careful as the unit will not be very hot.
- viii. If you are adding aroma to the water this will alter the surface tension of the water and may cause it to spit when boiling into steam. If this happens either reduce the amount of overall liquid in the generator or reduce the amount of aroma in the water. Do not add neat aroma to the tank, ensure the aroma is diluted. Oceanic aromas are to be diluted 1 part aroma to 20 parts water. For every 1ltr of water only add a maximum of 50ml of aroma.
- ix. Ensure you drain the steam generator after the end of your session.

Mini Steam Generator Maintenance

The most common problem with steam generation is the build up of scale resulting from dissolved solids within the water. Scaling can cause the elements to fail, the water level sensors not to function, premature failure of the O-rings resulting in leaks from around the elements. The extent of the problem will vary according to the degree of hardness in the local water supply.

Expect 2500 hours element life, this can be seriously depleted by poor maintenance.

All users must ensure a regular maintenance routine to descale the generator – the frequency of this will vary according to the degree of hardness in the local water supply and the amount of time the generator is used for. Check the water for hardness and arrange the descaling routine accordingly: –

High levels of hardness descale once every 50 to 100 hours of operation.

Medium levels of hardness descale once every 100 to 250 hours operation.

Low levels of hardness descale once every 250 to 1000 hours of operation.

To descale the generator use a solution of weak acid crystals (such as citric acid) mixed with water

Citric acid can be purchased from: www.oceanic-saunas.co.uk