

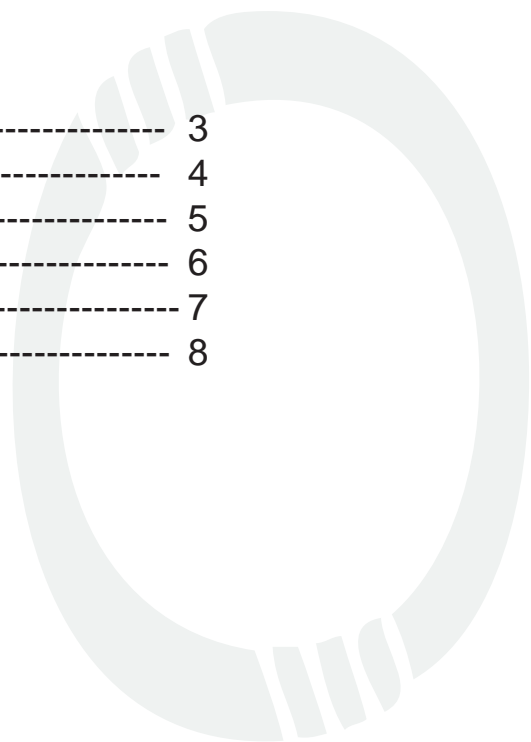
FINO



Thank you for choosing a Fino Sauna heater for your sauna.
It is our privilege to have you as our customer.

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This heater consists of two parts: the electronic control panel and the heater. We only use first class materials coupled with a state of the art design and the highest safety standards for all of our sauna heaters.

You will be satisfied with the noticeable effects on pain relief, weight control, skin stimulation and stress reduction due to increased blood circulation from sauna bathing. It is the first choice for modern homes, hotels and health clubs.

Warning

1. Read the operation manual carefully and completely before use.
2. In no event shall we be liable for any incidental or consequential damages Wire caused during shipping. If there is damage, contact the shipping company or your sauna supplier for compensation.
4. Be sure the electrical installation is done by a certified technician.

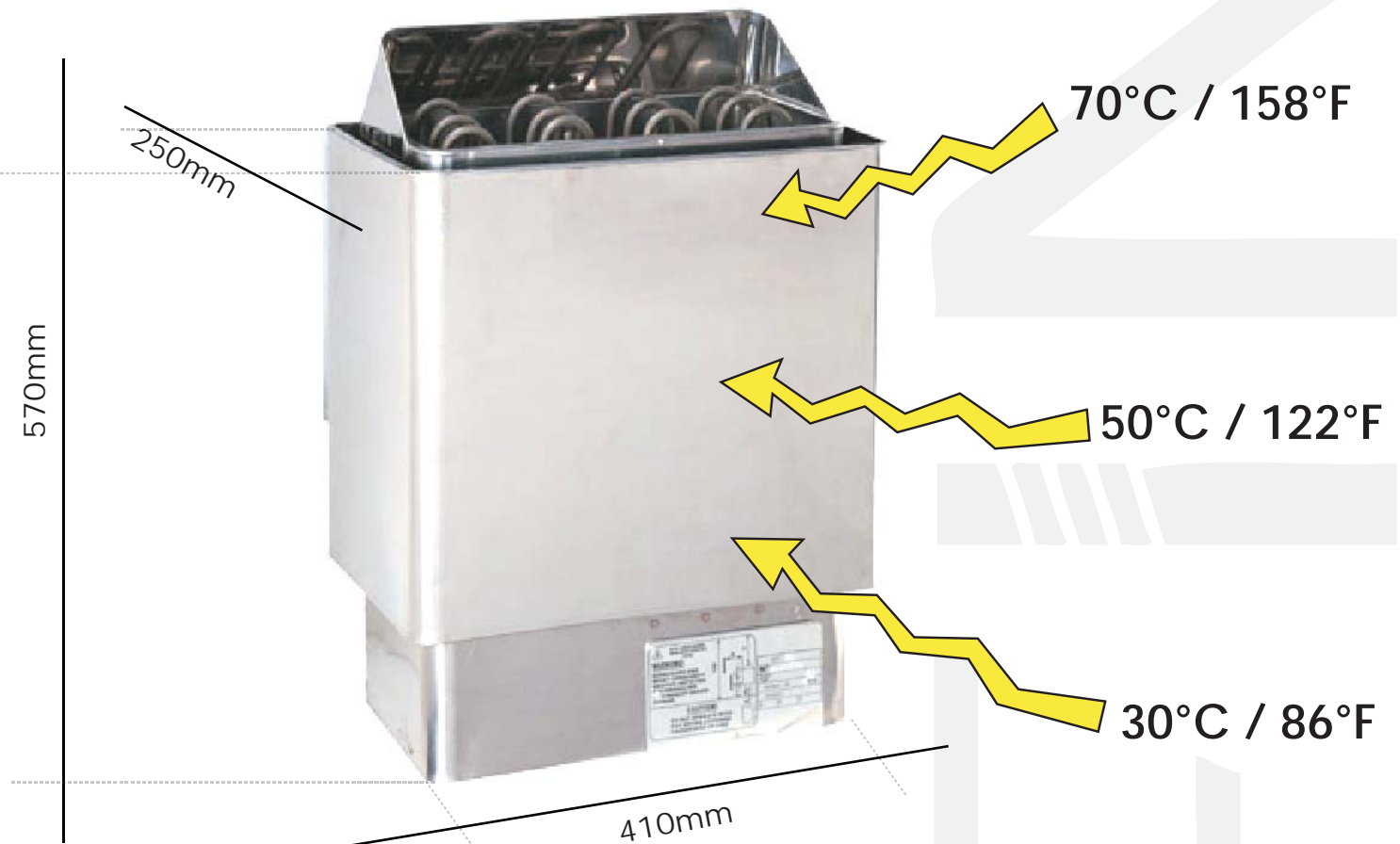
Caution

1. Please consult your physician before use, especially if you have high blood pressure, suffer from heart disease, or not in good health.
2. Children should be accompanied by adults when using this sauna heater!
3. Sauna stove is hot when using! Touching it may result in serious burn.
4. Covering the heater is a fire hazard.
5. Do not use this sauna heater for any other purpose. Only use the heater in the sauna room.
6. Do not place combustible materials near this sauna heater. It may cause fire

Technical Data

| Rated KW | Heating Element (KW) | Sauna Room (cubic feet) | Voltage | Amps @220 Volts | Amps @240 Volts | Suggested non-gfi breaker* (amps) | Wire gauge |
|----------|----------------------|--------------------------|---------|-----------------|-----------------|-----------------------------------|------------|
| 4.5KW | 3x1.5 KW | 112 - 202 | 220V | 20.46 | 18.75 | 20 | 12 |
| 6KW | 3x2KW | 202 - 270 | 220V | 27.28 | 25.00 | 30 | 10 |
| 8KW | 4x2KW | 270 - 360 | 220V | 36.37 | 33.30 | 40 | 8 |
| 9KW | 3x3KW | 360 - 405 | 220V | 40.91 | 37.50 | 40 | 8 |

Maximum Heater Temperature Data



Heater Installation

Note: remove plastic protective coating on surface of heater after complete installation but before start-up

A. Choose Installation Location.

It is recommended that the heater be placed on the wall nearest the door. The air circulation created by the door should work with the hot air generated by the heater.

B. Installation Steps.

Attach the heater to the wall with the aid of the supplied mounting rack. Be sure to build a strong foundation for the mounting bracket or reinforce the wall with a thick board to prevent the heater from collapsing beforehand. Use the screws to fasten the rack to the wall. To affix the heater to the rack, lift the heater and fit the open slots on both sides at the back of the heater to the screws on the sauna panel. Recheck the screws to make sure the heater may not accidentally move.

Note: Do not use asbestos-cement tile, asbestos-board and similar material as wall panel behind the heater. This material will cause the temperature of the wall to rise dangerously high.

C. Installation Steps

Install Temperature sensor inside sauna 18" @ dorm ceiling near the entrance of the sauna.

D. Heater Guard.

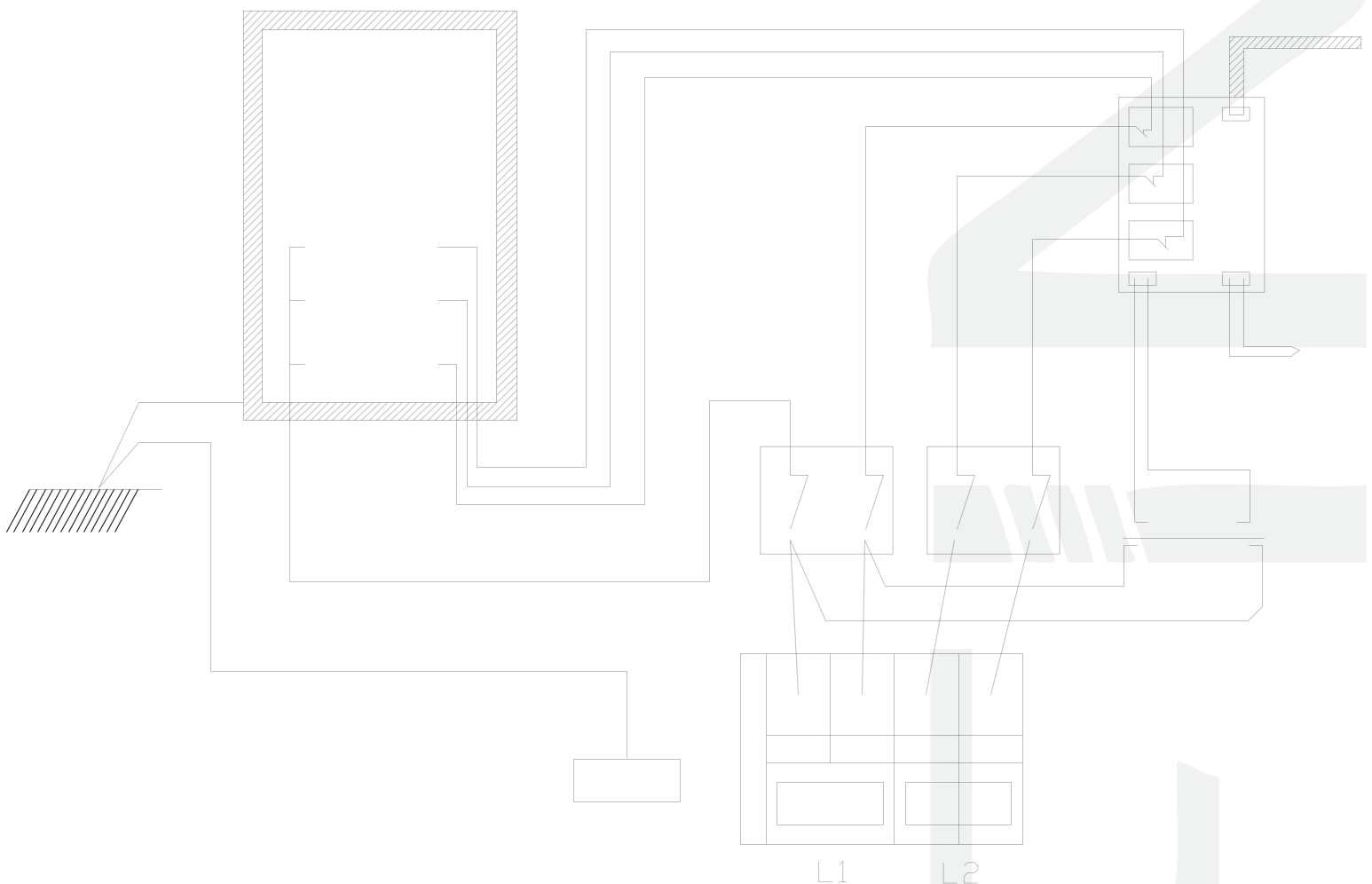
The heater gets very hot while working. To avoid accidental contact with the heater, it is recommended that a heater guard be installed. The guard rail should be as high as the heater rocks and at least 2" away from the heater casing.

Electrical Hook-up

The electrical installation must be done by a certified electrician in accordance with national electrical codes and local regulations. Improper electrical connection may cause fire or electrical shock. Refer to the wiring diagram in Figure 6. Be sure the supply cable comes with a circuit breaker. Please consult with the supplier if you choose to install it by yourself. Referring to Table 1, choose the correct wire size. The cable wire must be able to bear a high temperature of 170° F / 90° C. (It is recommended to use rubber cable wire). The heater must be grounded.

It is recommended that the junction box be installed outside the sauna. If you want to install it inside, then it must be sealed and splash-proofed.

The connection inside the heater may be labeled N (for Neutral) and L (for Live). This is for Europe and Oceania. Note that in North America and South America, these labels should be changed to L1 and L2 for 220/240volts.



Control Panel Operation

The wall control has been designed for simple operation by means of gentle finger press on the square switches. The control panel should not be installed inside the sauna.

A. Power ON/OFF

When the control panel is powered on, the power indication LED should be lit and LED screen display --. Press the power key to activate the unit. All function buttons will then be in operation phase. The power indicator LED will then go out and the LCD screen will display the ambient temperature. Push this button again to deactivate the unit.

B. Sauna Time Setting

Set the desired sauna time by pressing the time up and down key when the system is activated. The time can be adjusted from 5minutes to 240minutes, in 5minute intervals. The system shuts off automatically when the actual time is higher than the present time. No button should be pressed and held for more than 5 seconds at a time. The time indicator LED will then go out. Meanwhile, the temperature indicator LED is lit and the LED screen shows the present temperature. The system is preprogrammed for 60minutes by default.

C. Sauna Temperature Setting

Use the up and down buttons to set the desired sauna temperature when the system is activated. LED screen shows the preset sauna temperature and the indicator LED flashes. Temperature can be adjusted from 25° C to 90° C. No button should be pressed and held for more than 5seconds at a time. The temperature indicator LED will remain lit. The LED screen shows ambient temperature. When ambient temperature is 1° C higher than the desired temperature, the system shuts off power supply to the heating elements automatically. The heater will work again when ambient temperature is lower than set temperature. The memory function will recall the last temperature reading when the heater powers on again.

D. Overheat protection (High Limit Switches)

There are two overheat protections inside the heater. When the temperature inside the heater rises to an abnormally high level, the overheat protection will kick in and power off the heater automatically. The heater will stop working until you push the relative reset button on the bottom of the heater. Reset operation should be made by a certified technician.

E. Fahrenheit to Celsius Readout Setting

Press the temperature and the time up buttons at the same time and hold for 2seconds while the power is off. This will switch the readout from Fahrenheit to Celsius temperatures or vice versa.

- | | |
|---------------------------------|-----------------------------------|
| 1. Temperature indicator LED | 2. Temperature adjust key -- HIGH |
| 3. Temperature adjust key – LOW | 4. Power indicator LED |
| 5. Time indicator LED | 6. Time adjust key – HIGH |
| 7. Time adjust key – LOW | 8. Power ON/OFF |

Note: The control box should be installed on the wall outside the sauna room.

Your heater may use approximately 18kg of stones depending on the size and dpecific density of the stones that you select. Your heater will function correctly without stones but we recommend using rocks for a more comfortable heat. Also, some items like dry towels or tissue paper may easily ignite if dropped directly on the heat elements; therefore using rocks helps prevent fire.

Sauna Stones

Hard igneous rock, such as granite or river rock often makes excellent sauna stones. Some types of rocks may be unsuitable for use in a sauna if they emit a harmful substance, easily break or do not possess good heating capacity. Wash the stones in water before putting them into the heater. Place them around and between the heating elements. Place the larger stones at the bottom of the stone compartment and the smaller ones on the top. Rocks must fully cover all heating elements. Heater stones must be arranged loosely to ensure there is good air circulation.

Note: Stones that are placed too tightly together decrease the lifetime of the heating element. Replace the stones in the heater if they begin cracking.

Precautions

1. Do not connect or disassemble the heater while the power is on.
2. The heater should remain horizontal upright at all times (see Fig 5).
3. Throw water onto the stones as shows in Fig. 5, while being careful not to burn yourself from the vapor of the heater.
4. Make sure that the sauna room has been efficiently ventilated. Do not jam the inlet and outlet vents.
5. Operate the control panel correctly, according to the instructions in this manual.
6. Install the heater according to the installation guide.

Troubleshooting

Note: Shut off power supply before checking.

| Problem | Reasons | Solutions |
|---|---|--|
| Heater appears to still be working but I do not feel the temperature getting hotter | When the high limit switches are tripped, the heater will still appear to be working even though it has been shut off | Refer to overheat protection / High Limit Switch. |
| The breaker switches on automatically | The line connections are damp or damaged | Check the line connection. Use the blower if they are damp |
| No display on Control | The power is not connected properly or the connection may be loose. | Check the connection between control cards that exit from the control and the terminal. |
| Displays Celsius when Fahrenheit is desired | The digital control has the ability to display either C° or F° | Press Power OFF on the control and then while the power is OFF hold down the time up and temperature up buttons at the same time until you see the C change to F and vice versa on the LED display screen. |

Note: Problems mentioned above should be solved by a certified electrician. If any problems occur, please contact your Fino Sauna dealer. Fino Sauna is not responsible for misuse of this product or failure to obey these instructions.