

INSTALLATION GUIDE & OWNERS MANUAL

Steamcore Pro-Series

**This Manual contains installation and operation instructions,
specifications, maintenance information, and warranty information**

Certified to CAN/CSA Std No. 88
Conforms to UL Std. 499

Saunacore manufactures high quality steam bath generators, sauna heaters, modular sauna rooms, do-it-yourself sauna material kits, infrared saunas, and much more.

From our smallest residential unit to our largest commercial unit, our products are manufactured to meet stringent quality standards to offer you all of the benefits of a relaxing, restoring, steam bath or sauna experience. Every single unit is tested for proper operation before leaving our manufacturing plant.

When we at Saunacore sat down to create a new steam bath generator, we acted on satisfying our customers wishes for Quality, Safety, Reliability, and Durability. We also made it Strong, Practical, and Powerful, by using the most advanced parts available. All of Saunacore's Steam Bath Generators and Sauna Heaters meet the applicable requirements by CSA, UL, and CE standards.

Thank you for Purchasing a Fine Saunacore Product. If you have any questions you may call our Customer Service Line at 905-951-6662.

Inspection and Shipping Claim

Check for shipping damage upon receipt of the product. Saunacore is not responsible for damage to the product sustained during shipping. If damage is evident before unpacking, file a claim with the carrier.

Once the product has been removed from the carton and before it is permanently installed, check the parts completely for damage resulting from shipping or handling. All products are factory tested for proper operation and water tight connections prior to shipping. If problems are detected, immediately notify Saunacore at 905-951-6662 for Service.

OWNER'S RECORD

Model #: _____

Serial #: _____

Purchase Date: _____

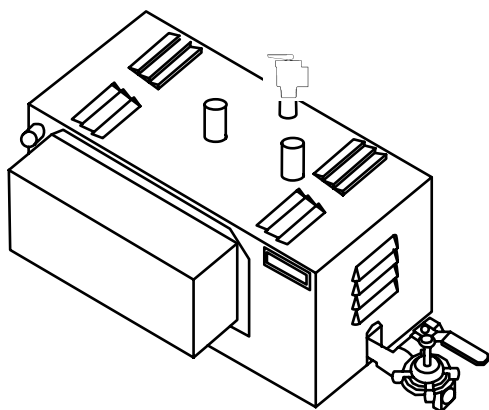
Purchased From: _____

Installed By: _____

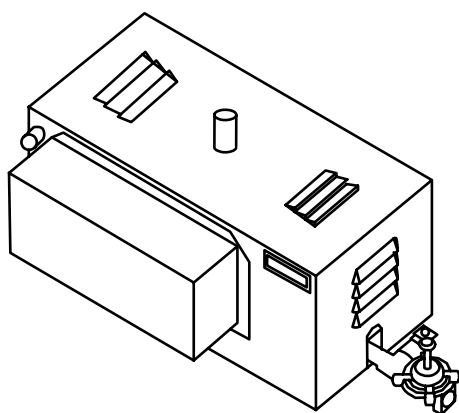
NOTE: Damage or defects which could have been discovered and repaired prior to installation and which are claimed after final installation of the product are excluded from our warranty

Generator Installation Instructions

Typical Commercial Model



Typical Residential Model



Requirements for Proper Installation

- 1.) Use copper or brass fittings only. (NEVER USE GALVANIZED FITTINGS)
- 2.) The water inlet, steam outlet, and drain need brass unions for easy removal.
- 3.) The Generator must be upright, accessible, and on a level surface.
- 4.) Unit may be installed up to 50 feet away from shower area.
- 5.) **DO NOT** use ABS, PVC or any plastic material for the steam line.
- 6.) **DO NOT** plumb a trap in the steam or drain line.
- 7.) Pitch steam line back toward generator and avoid perfectly level plumbed lines.
- 8.) Before connecting water line to the generator, flush water line into a five gallon pail to remove any slit or other materials that may be in the line. An in-line water filter is recommended.
- 9.) Make sure water is turned on to the unit before testing or operating the unit.
- 10.) Unit and Supply lines **MUST** be protected from freezing!

Parts Enclosed

Control
Steamhead
Steam Generator
Pressure Relief Valve, coupling, & fittings.

Tools Needed

- Pipe Wrench
- Tubing Cutter
- Flaring tool (if flared fittings are used)
- Pipe thread cap
- Adjustable wrench
- Screwdrivers (Phillips and Regular)
- Solder & Flux
- Drill motor
- Propane Torch
- Silicone Gun
- Other tools as required

CAUTION: If the unit is run without water, serious damage may occur! This possible damage is not covered under the limited warranty.

NOTE: Failure to follow installation instructions specifically will cause the warranty to be void.

All generators are designed to build **NO PRESSURE** during operation.

This is for your safety.

BEFORE INSTALLING

Read these instructions before installation or service. Although the Steamcore Steam Bath Generator has been fully qualified for shipment by Saunacore, the following must be reviewed for proper, safe and enjoyable steam bathing.

Verify that the model and accessories are correct, including line voltage.

Insure steambath generator has been correctly sized for the steam room. Pay particular attention to room volume and construction.

Marble or glass walls and ceilings, or exterior walls "ENLARGE" the room's size, requiring a generator larger than one based only on the room's cubic foot (L x H x W) volume.

The physical size of the unit, clearance for plumbing, servicing, and its distance from the steam room must all be considered before final installation.

IMPORTANT

Steamcore units are intended to be operated with a Steamcore timer and/or temperature control only, and are to be installed strictly in accordance with the specific instructions supplied with these optional accessories and the information contained in this manual.

CAUTION!

Steamcore steam generators are connected to extremely high line voltage and contain live electrical components. All installation and service to be performed by qualified electricians and plumbers only. Installation or service by unqualified persons may void the warranty.

Pressure Safety Valve(s) - (Supplied Only - must be installed on-site by plumber).

1. Safety valve is a safety equipment in order to prevent too much steam pressure in the steam generator due to various reasons; such as, steam line blockage, undersized steam lines, steam line traps, plugged steam outlets (vandalism), etc.
2. The pressure limit range of the safety valve(s) supplied is 15 psi.

A Pressure Safety Valve (Steam Pressure Valve) has been supplied with this steam generator unit. The steam generator has a mounting location (labelled) for the pressure safety valve. A qualified licensed plumber must install the supplied pressure safety valve during installation of the steam generator. Attach by screwing the pressure valve onto the steam generator in the designated location using hi-heat silicone and allow to cure 24 hours before using steam generator. The pressure safety valve must be installed by a qualified licensed experienced plumber.



Steam generators 18 KW (18000 watts) and higher will have a factory installed 10 psi Steam Pressure Switch. This switch will cut power to the steam generator when the inside boiler tank or steam line(s) pressure exceeds 10 psi. The switch will reset and activate power when the pressure drops below the 10 psi factory set range.



STEAM ROOM:

If you are using an existing shower or bathtub, make sure that it is completely sealed right up to the ceiling. The ceiling and walls must be tiled or covered with water resistant material. If you are building a steam room, talk to someone that has experience with the construction of steam rooms. Steam rooms must be constructed differently from any other type of room.

STEAM ROOM REQUIREMENTS:

- 1.) Steam room must be completely enclosed, with full walls, door, floor and ceiling.
- 2.) It is recommended that a gasketed door is used for heat sealing and steam containment.
- 3.) If tile flooring is used, install anti-skid strips or equivalent, for safety.
- 4.) Walls and ceilings must be covered with water-resistant, non-corrosive surface, such as tile, molded acrylic, fiberglass, etc.
- 5.) Provide a floor drain.
- 6.) Ceiling and seat must slope slightly to allow condensate to runoff. (Ceiling slope 2" per 1 ft)
- 7.) Steam generator must be on a flat surface, in an area where it would be accessible, dry, and where it will not freeze. The steam lines should always slope either towards the generator or towards the steam heads as not-to allow the formation of condensate to accumulate.
- 8.) All inside surfaces should be adequately sealed. Around faucets, shower head, and steam heads should be sealed with mildew resistant silicone.
- 9.) Ceiling height should be no higher than 7ft to 8 ft, preferably 7 ft.
- 10.) Room should be insulated with not more than a maximum R-12 value. A higher R-value may cause room to heat too quickly and not allow steam to condense normally.
- 11.) Steam lines over 10 ft should be insulated.

Ventilation:

Generally, steam rooms which are used at a maximum of two hours at one time do not require any special ventilation. Steam rooms which are continuously used more than two hours at a time should be ventilated with a ratio of 10-20 cubic meters of air per person per hour. The air inlet maybe placed down low on the same wall as the door or a gap under the door. the air outlet should be up high as far away from the inlet as possible. Do not locate above door or over seats. Outlet should be connected to a vent duct leading to open air. Duct should be 100% steam and water tight. Avoid sags in duct which may cause water pockets, that will block outlet, due to condensation.

NOTE: These are only suggestions. Saunacore manufactures quality steambath generators and sauna heaters; therefore we cannot warrant information regarding materials and construction methods of steam room and sauna room.

Locating the Steamcore Steam Generator Unit

Locating the Steamcore Steam Generator Unit:

1. Plan the location for mounting your steam generator.
2. Do not install generator inside steam room.
3. Do not install generator outdoors.
4. Do not install generator near combustible or corrosive materials or chemicals.
5. Place the generator in a dry and easy accessible location for future periodic maintenance. Locate steambath generator preferably within 25 feet of the steam room, though it may be placed up to 50 feet away.
6. A gravity drain will be necessary for all units.
7. Never locate a unit that may be exposed to frost, fire, or high moisture. Do not install steambath generator in unheated attic or basement where water could freeze.
8. The unit must be located on a solid and flat level surface.
9. Install generator in an upright position only.
10. Steam line, and drain valve become hot during operation. Provide appropriate protection.
11. Commander Controls and Air Switch Control can be located inside the steam room or on the outside of the steam room. See separate control installation and operation instructions for specific details. Mechanical controls are located outside the steamroom, a remote sensor is required for all controls
12. Install anti-water hammer device as required.
13. Provide access to both ends of the steambath generator for servicing.

Example:

A ceramic steam shower with the demensions 7ft length by 5ft wide and 7ft high (7ft x 5ft x 7ft = 245), is 245 Cubic feet.

Since the steam shower has ceramic wall finishes, it then requires a 25% cubic footage increase.

(Ceramic tile) 25% x (steam shower) 245 = 61.25 ft

The wall finish cubic feet is then added to the origin dimensions to calculate the total cubic, which in this case is 306.25 ft.

(ceramic tile) 61.25 + (steam shower) 245 = 306.25 ft

Now select the next size of Steamcore model generator which exceeds the calculated room cubic feet. This case the KWS (9000 watts) generator is required. If there is doubt in size, it is recommended to choose the next larger size.

Steam Bath Generator (Sizing and Selection)

Measure the length, width and height (in feet) of the steam shower. Multiply the three measurements together to get the basic volume in cubic feet.

$$L \times W \times H = \text{CUBIC FEET} \times \% (\text{wall finish})$$

Add the cubic footage to one of the wall finishes

Ceramic Tile	25%
Natural Stone	100%
Fiber Glass/Acrylic	0%
Steam Line 50ft+	20%
Glass Block Wall	10%
Steam Line Subject to Freezing	25%
Glass Wall	10%

General Installation Instructions (All Steam Bath Units)

ÔÇWQpÄ

V@A cæ A@æGDQ!Ä::|GD&^æA^
 @ @&^!^Ä A{]^æ |^Ä Ä@ä@ } äA@
 •cæ A@æ•Ä |ä *Ä•^ÄV@A cæ A@æ•
 •@ |äÄÄ •æ|äÄ Äææ æÄ[{ Ä^Äæ@!•Ä
]æ@Zæ@!•Ä^Ä Äæ[äÄÄÄææ äÄ[{ Ä^Ä
 ää^&@ } æÄÄ A@A cæ A@æ•ÄO } ÄÄ b!^Ä
 { æÄ && |ÄÄ &@äÄ |Ä A@Äææ æÄ |ä *Ä•^Ä
 Ç]!]!æÄ | c&ä } A @ |äÄÄ | çæäÄ Ä
 æ[äÄ b!^E

Steam Generator Positioning:

The steam generator must be properly positioned for it to work. Place the steam generator TOP UP, which will be indicated on the Unit with arrows. The steam line(s) are on the top of the unit. The water inlet, electrical connection box, and drain are on the sides of the unit. Installation in any other way will cause malfunction or damage to you steam generator, voiding your warranty.

Water Connections:

All plumbing shall be performed by a qualified plumber and in accordance with applicable National and Local codes. Use unions on all pipe connections. Use only brass piping or copper tubing. Do not use black, galvanized or PVC pipe. Connect your water supply (cold water) to your unit with a ¼, ½ or ¾ inch soft copper tubing. An inline filter has been installed by the factory. When connecting the steam lines, drain, and the pressure relief loop (commercial units) one must use two wrenches, one to hold the fitting from the steamer and the other to tighten the fitting which is being connected.

1. Connect hot or cold water line. Hot water should not exceed 160 degree Fahrenheit. (Cold is preferred)
2. Provide a shut off valve in the supply line.
3. Do not overheat inlet solenoid valve with solder connections. Overheating will damage parts.
4. Flush inlet water line thoroughly before making connection to unit.
5. Strainer is required if there are solid particles in the water.
6. For proper performance water pressure must be 15-20 psi.

Electrical Connections:

All electrical wiring to be installed by a qualified and licensed electrician in accordance with National and Local codes. All power rating, electrical connections and wiring is clearly labeled on all units.

1. Check power voltage. (Most homes have 240V, IPH service).
2. Use minimum 90 deg. C/300V copper conductors only, sized in accordance with National and Local electrical codes.
3. Connect equipment grounding wire to ground terminal provided.
4. Install a separate circuit breaker between supply and unit.
5. On single phase units, use two-wire supply source with ground. Neutral (white) wire is not required, but may be used
6. A suitable metal conduit and metal conduit connector should be used for the main power wiring connections.

The total connected load should not be more than 80% of the rating of the overcurrent devices.

General Installation Instructions (All Steam Bath Units)

CAUTION !!

The steam head(s) (or nozzle(s)) create very high degree of temperature in and around the steam heads during use. The steam heads should be installed as far away from any bathers path. Bathes are to avoid this area and from any direct contact to the steam heads. Burn or injury may occur if touched or in the vicinity during use. Appropriate protection should be provided to avoid injury.

Steam Connections:

A ½ inch union fitting is supplied at the single steam outlet on KWS 2, KWS 3, KWS 4.5, KWS 7.5 model generators that will use one steam head. A 1 inch union fitting is supplied at the steam outlet on all KWS 9 to KWS 36 model generators. All 1 inch steam outlets on the unit must be reduced to two ½ inch lines using a T reducer before reaching the steam room and the ½ inch pipe length to be close to equal lengths to the steam room. Each 1 inch steam line on your unit will require two standard steam heads or one designer steam head. (Depending on the model, your steam generator may have up to 4 - 1 inch steam outlets on the unit that will be reduced to 8 ½ inch steam lines to the steam room, using 8 standard steam heads or 4 designer steam heads). Do not have any low points in the line that will allow condensation to sit in the steam line(s). The steam heads should be mounted approximately 10 to 12 inches above the floor and 6" away from a corner, located in an area where you will easily avoid physical contact. Direct the steam head(s) outlet slot down and the fragrance reservoir up. If steam room is provided or built with seat(s), locate steam head as far away from seat as possible.

Drain:

This is a gravity draining system on all model steam bath generators. A ½ inch compression fitting is supplied with the unit and is to be installed on a ½ inch copper pipe that slopes slightly downwards and away from the unit. It can be plumbed into an existing drain line or to an open floor drain. If there is absolutely no drain available, you may direct it into the shower/steam room. When connecting, you must use the two wrench method or you may break the seal on the connection between the drain pipe and the boiler tank, and cause leakage.

Testing: Now that your Steamcore is connected, you must test it.

1. Turn on your water supply and check for leaks.
2. Turn on your power supply at the electrical panel; be sure the unit is receiving power.
3. Set the 30 minute mechanical timer to the desired time and wait for steam.

Option: Elegance Controls - - set temperature and press on

Option: Press Air Switch until red LED Light comes on and wait (pre-programmed 30 minute timer and temperature set at 50 degrees Celsius)

4. Within a few minutes your steam room should begin to fill with steam.
5. Check to make sure your steam lines do not leak condensation and steam.
6. You may want to insulate the steam lines with pipe insulation; this is strongly recommended if your steam generator is more than 10 feet from the steam room.

NOTE:

To preserve steam head finish, do not use wrench or other tools to tighten. Hand tightening is sufficient when Teflon or equal pipe thread sealing compound is used.

NOTE:

A drain valve is provided to facilitate servicing. Where local codes permit, provide a drain line connection from a generator drain valve. Check local plumbing code for receptor, trap and vent requirement. Unit drains by gravity. Slope down.

General Installation Instructions (All Steam Bath Units)

Rinse and Flush Operation: (Silver and Gold Models Only)

All units have the pre-programmed rinse and flush feature. This will automatically take place after each steam bath, it will happen approximately 10 minutes immediately after the steam generator has finished being used and the set time has expired. On the units with the manual drain (Bronze Package), the Rinse and Flush operation will not occur. Manually open the drain valve immediately after the steamer stops, and then close the valve when ready for the next steam bath.

Filtration:

Your steam bath generator has been equipped with an inline filter from the factory. You may want to add your own secondary external filter or water softener, although it is not mandatory. This helps reduce foreign particles that may pass through the water line and lodge in the solenoid valve. Calcium and other mineral deposits is the number one reason for steamer breakdown. A secondary filtration system will add additional help to reduce or remove these components from the water prior to it entering the unit which will help extend the life and minimize maintenance schedules of the steam bath generator.

Maintenance:

Saunacore steambath generators are designed for unattended operation and require little maintenance. Other than periodic draining, maintenance procedures are not required. Every 2 months, or more often in "hard" water areas, the drain valve should be opened fully flushing out accumulated materials, salts, and other particles that are natural by-products of boiling water. Note: For best results, this should be done immediately after using the steambath generator, while contents are still hot and with the control off.

Semi-annual maintenance is strongly recommended for commercial units.

Contact Saunacore for details.

IMPORTANT:

Residential build-up from poor water quality may cause an incorrect reading of the water level control circuit. If this happens, your steam generator will attempt to clean and flush the system, if that does not work, it will shut down completely and the led display on the keypad will flash continuously. This is an indication that your water level control circuit needs service.

The main circuit breaker should be switched off immediately and kept off until the problem has been corrected.

Automatic Rinse and Flush Operation (Silver and Gold Models Only)

This automatic function considerably reduces the buildup of calcium carbonate and other deposits in the water reservoir. Do not switch off any switches between the main supply and the steam generator until at least 60 minutes after the control panel timer has turned the system off, otherwise, the automatic emptying and flushing of the water reservoir will not start.

WARNING: The water is very hot.

Drainage from Steam Generator

The pipe must lead directly to the nearest drain outside the steam room itself. The temperature of the water that is drained off is approximately 95 °C/200 °F.

IMPORTANT! *There must be no blockage of any type (tap, faucet, etc.) along the drainage pipe. Regardless of where the drainage head is located, it must slope all the way from the steam generator to the waste outlet. Under certain conditions, it may be necessary to place the steam generator on the wall brackets or a stand to achieve the right angle.*

Cleaning the Steam Room

Rinse seats and flooring with warm water (do not use a high-pressure hose) each time the steam room has been used. Wash the seats regularly with a mild soapy solution. Stubborn stains can be removed with ethanol or petroleum (mineral) spirits. Never use scouring powder, strong alkaline cleaners or aggressive solvents on the seats and walls in the steam room. It is important that the steam room floor is cleaned thoroughly - right into the corners. Scrub Clean with hot water and floor cleaner, which will remove grease and grime.

Shower in the steam room

We always recommend installing a shower in domestic steam rooms. After all, a steam room also makes the best shower room imaginable. And it is so pleasant to cool off with an invigorating shower now and again during a steam bath.

How to make the most of a steam bath.

Most people find that the most comfortable steam bathing temperature is between 40 and 45 °C. Use a bimetallic type of thermometer to check the temperature. Fix it on the wall about 180 cm (72") above floor level, as far from the steam jet as possible. There is no need for a hygrometer. The relativity is always 100%.

- Shower and wash before starting your steam bath
- Take a towel to sit on in the steam room
- Relax and enjoy the soothing clouds of steam.
- Cool down now and again with a refreshing shower. Alternate between the steam bath and the shower for as long as you feel comfortable.
- After your last spell amongst the clouds of steam, you'll find a long, cool shower a real delight.

Let your body dry off naturally before putting your clothes on. Relax, treat yourself to a cold drink and enjoy a sensation of true well-being. Don't get dressed until your body has cooled down and your pores have closed once again.

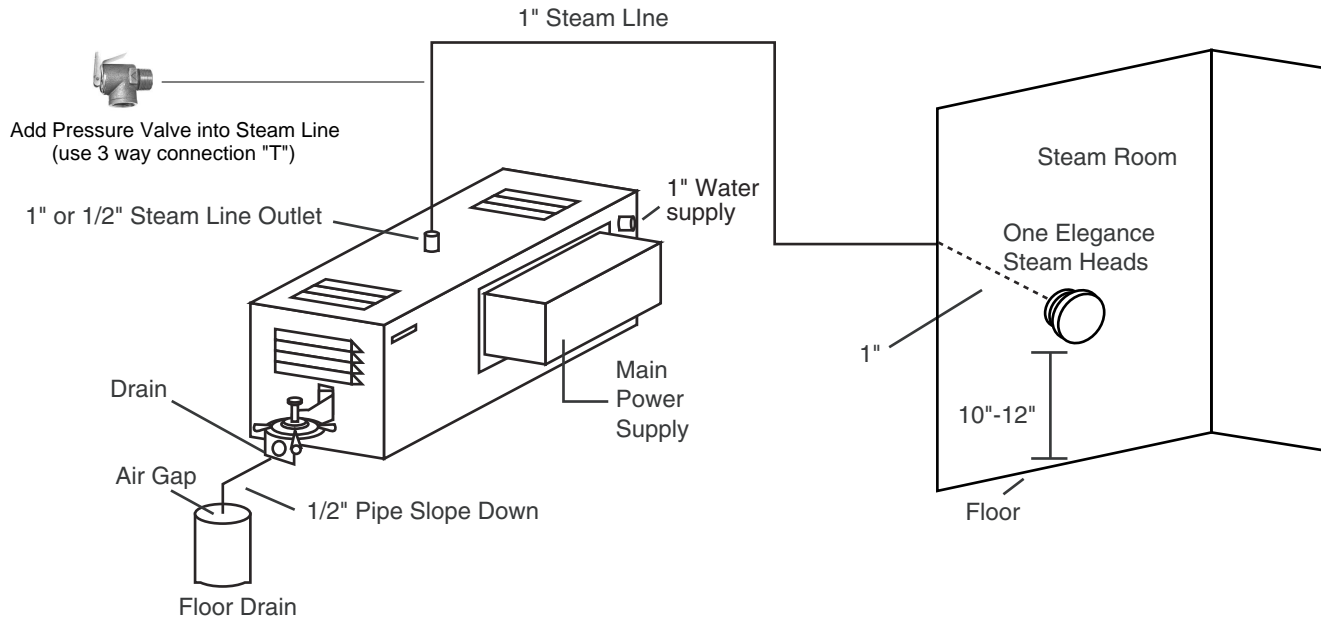
CAUTION !!

The steam head(s) (or nozzle(s)) create very high degree of temperature in and around the steam heads during use. The steam heads should be installed as far away from any bathers path. Bathers are to avoid this area and from any direct contact to the steam heads. Burn or injury may occur if touched or in the vicinity during use. Appropriate protection should be provided to avoid injury.

Typical Residential Plumbing Installation (Elegance Model)

STEAMCORE

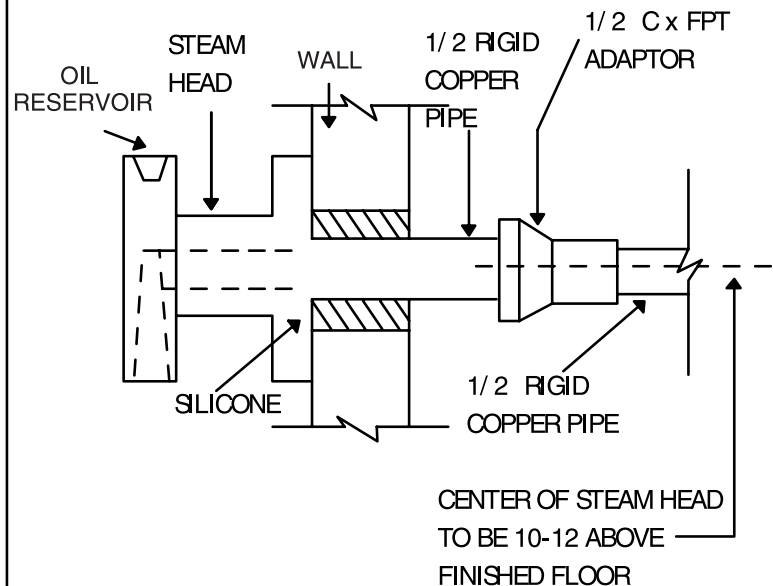
KWS2 - KWS12 Typical Residential Pumping Installation with Elegance Steam Head



STEAMCORE

Steam Head Installation

ELEGANCE STEAM HEAD INSTALLATION



3/4" NPT Female
(made with solid brass)

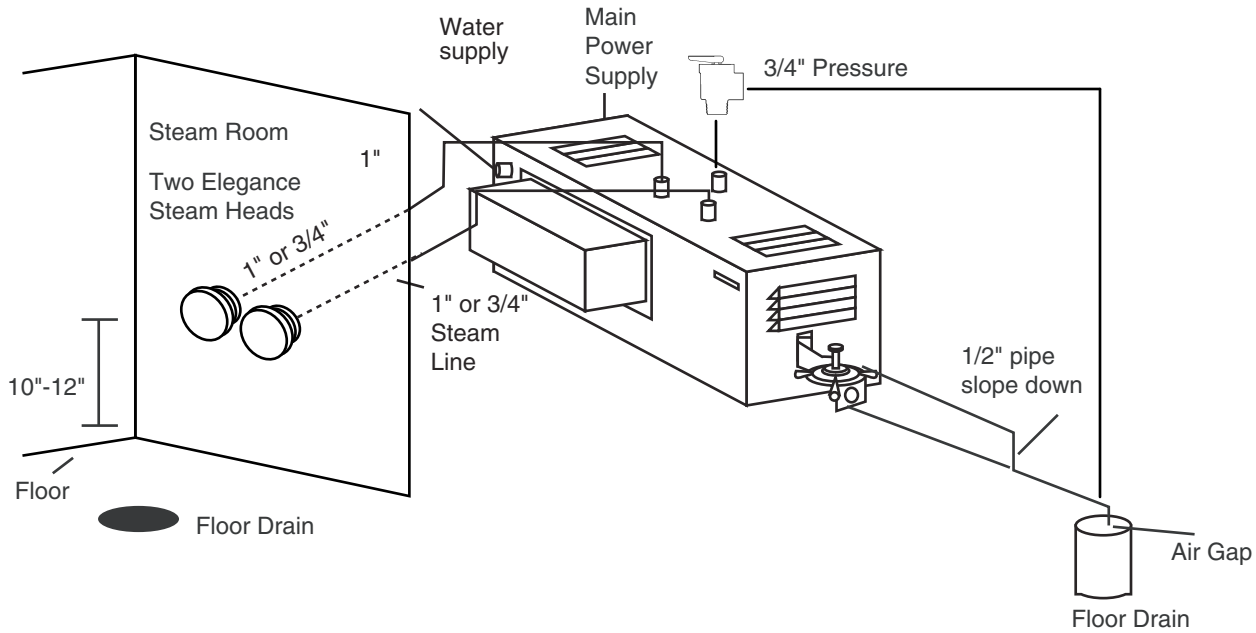
SAUNACORE

Elegance
Steam Head

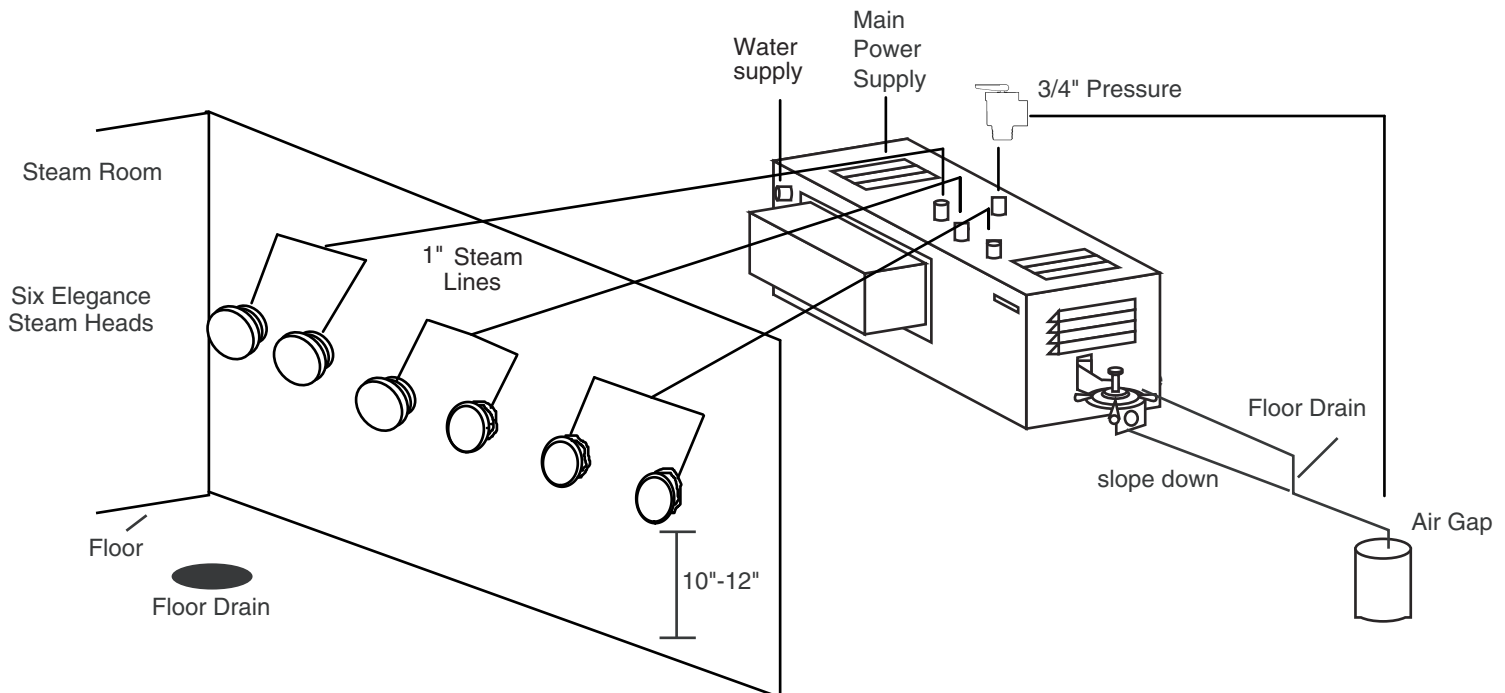
Typical Commercial Plumbing Installation (Elegance Models)

STEAMCORE

KWS 9 - KWS 18 Commercial Plumbing Installation with Elegance Steam Head(s)



KWS 22.5 - KWS 36 Commercial Plumbing Installation with Elegance Steam Head(s)



Note: All 1" steamlines must split and have 2 steam heads. Total of 2 steam heads per 1" steam outlet.

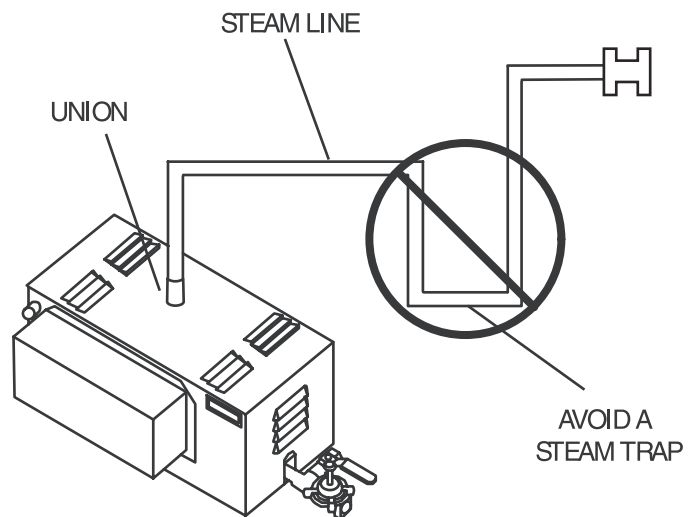
A 15 p.s.i. Pressure Relief Safety Valve and coupling has been supplied with your steam generator unit. It must be installed on-site by a qualified licensed plumber.

Use adequate silicone or tape sealant to prevent any steam leakage from the connection. This must be done on Residential & Commercial units.

PRESSURE RELIEF



AVOID STEAM TRAPS

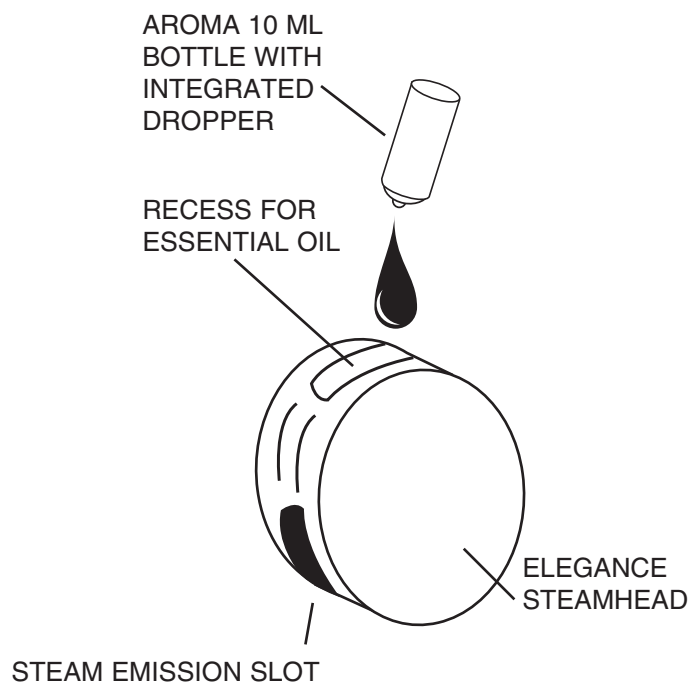


- 1.) Under **NO** circumstances is the steam line from the steam generator to be restricted or reduced to less than 1/2" inside diameter, or contain a steam trap. Steam line distance maximum 50 ft.
- 2.) Under **NO** circumstance should there be a valve or other obstruction in the steam line.
- 3.) Water **MUST** be able to drain from all sections of the steam line at all times.
- 4.) Adequately treat impure water or warranty policy may become null and void.
- 5.) The steam generator **MUST** be positioned so that THE STEAM LINE **COMES OUT OF THE TOP.**
- 6.) Use only factory supplied modular connector with any unit, any substitute connector will void warranty.
- 7.) Cutting or tampering with internal wiring will void warranty.
- 8.) Timer switch may not automatically turn on appliance if knob is not first rotated past "turn past" point ("dd" above 5 minute mark) on the mechanical timer switch.

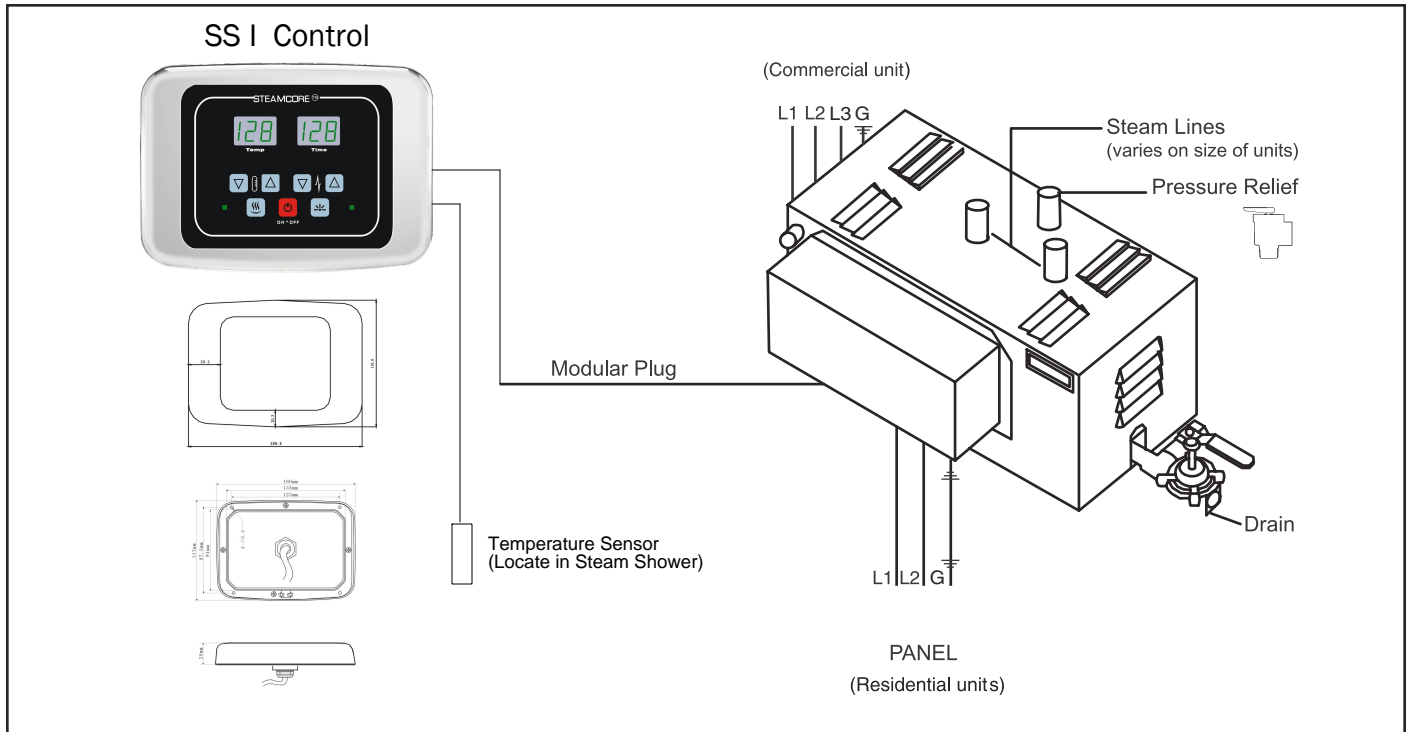
Enjoy Aroma essential oils by placing a drop or two into your steamhead as shown in the attached illustration. Only use Steamcore Aroma Essential Oils in a Steamcore steam head, or any other equivalent oil deemed suitable for use in the Steamcore steamhead.

Caution:

- Use essential oils with caution. Essential oils are for external use only. Keep out of reach of children. Essential oils are highly concentrated and are potent substances and should not be applied directly to the skin as they can be irritants. Use essential oils with caution.
- Place the drops into the steam head recess prior to turning on the steambath. Do not place drops in a hot steam head as **SERIOUS INJURY CAN RESULT IF YOU DO NOT FOLLOW THIS WARNING.**
- Start with one drop to gauge strength and suitability. Limit to a maximum of a few drops during a steambathing session. Some people may find that the aroma makes them dizzy and the user should exit the steam bath **IMMEDIATELY**. If skin irritation occurs stop using the oils immediately. Remove any excess oil by washing in mild soap and water. If ingested, rinse mouth with water. Administer water or milk to dilute. Contact a physician immediately.



Tightly close containers when storing oils. Keep away from sources of ignition.

**NOTE:**

SS I Control may be located inside or outside of the steam room. The SSII control must be installed in the steam shower.

SSII control has the steam shower temperature sensor built into the control keypad.

Main power supply in conduit or use bx (L1, L2, L3, and Ground.)

SSI CONTROL**1. Locating the Control Inside or Outside the Steambath enclosure:**

The SSI Control is designed to be installed inside or outside the steambath enclosure according to personal preference.

It is recommended that the SSI Control is located about 4 to 5 feet above the floor. The control should be located away from direct shower spray and must be kept away from hot piping and steam piping. SSI or SSII control may be siliconed to wall finish.

2. Determine if the installation of an electrical box is required.

The SSI and the SSII Control operates on low voltage signal. Check your local building codes to determine if the use of an electrical box is required.

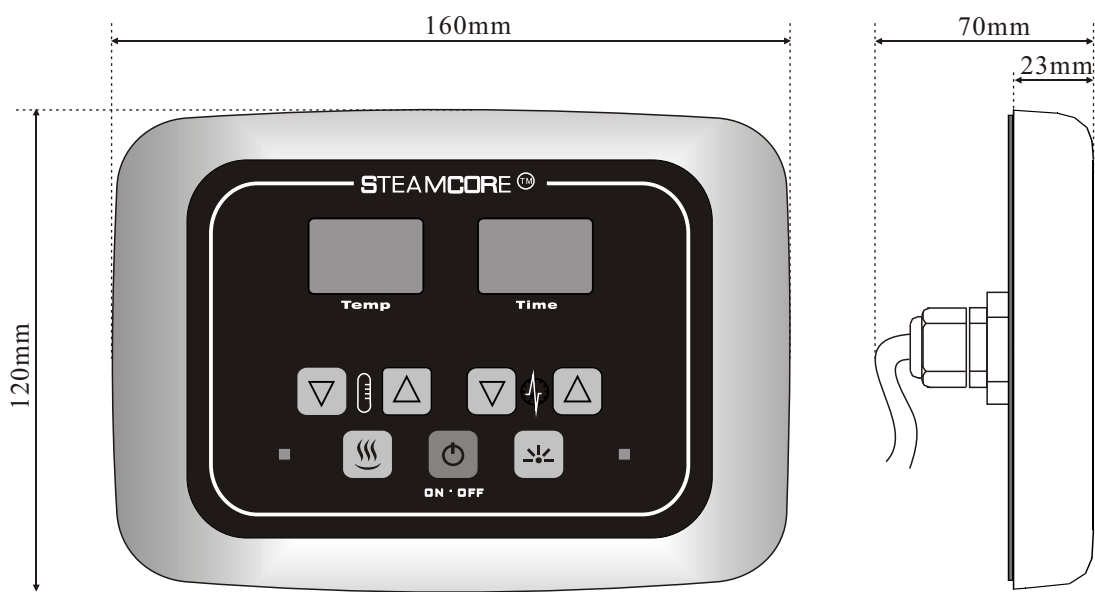
3. The SSI or SSII Control cannot be used together with any other controls.

CAUTION: Do Not route the SSI or SSII Control cable inside conduit together with power lines or close to hot water or steam piping. Doing so may result in a malfunctioning control.

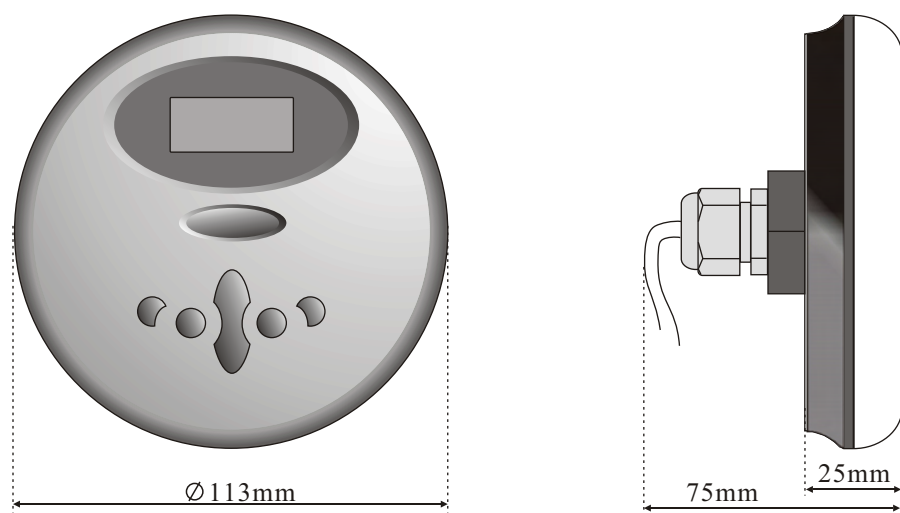
User Manual

Control panel (both SSI and SSII) dimension

SSI and SSII Control panel may be switched for Spa II



SS I



SS II

User Manual

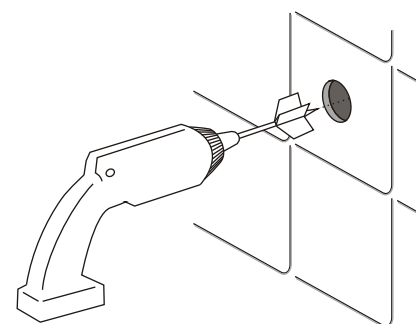
Installation instruction of controller

Important: *Before installing the controller, make sure the steam generator is shut off otherwise the controller may be damaged.*

Step one

Determine the installation location of the controller.
The controller is designed to be installed in the steam room :

1. 4-5 feet from the ground.
 2. Away from the steam nozzle and do not expose under the direct path of steam.
 3. Installation on perpendicular wall.
 4. The position of installation should facilitate easy operation and convenient wiring.
- The controller wire is 1.0 feet long with a controller lengthened wire of 20 feet long at the most. In the installation of controller, it should be in a position not more than 21 feet from the steam engine. If longer wire is needed, contact professional service personnel.



Important: *Do not install the controller under the water pipe or in a position where water comes into contact.*

Step two

Drill a round hole of $\varnothing 35\text{mm}$ in diameter in a chosen position, no larger or smaller.

Step three

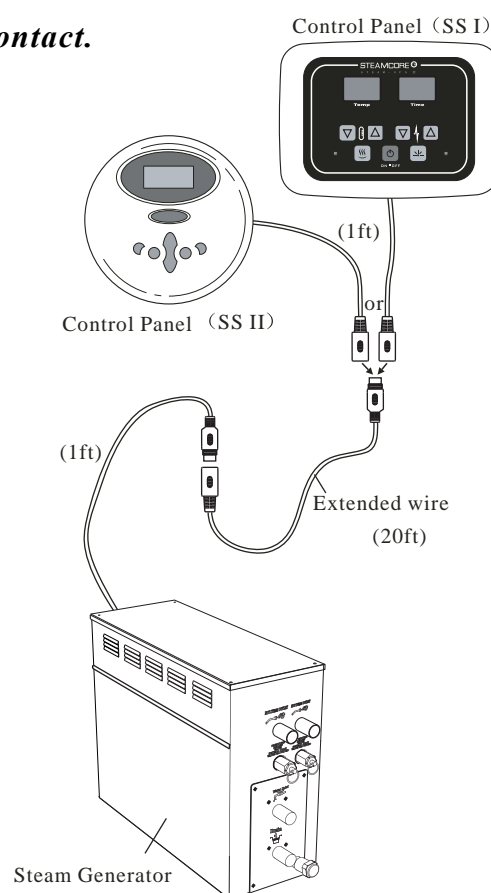
Pull the controller wire through the round hole, connect it to the lengthened wire and then to the steam generator, and connect with the corresponding wire in generator. When the computer wire is plugged in, aim the direction and insert horizontally, instead of shaking at left and right in case the computer needles could be damaged. Do the same when unplugging.

Important: *Do not pull tight, or clip tight the controller wire in case of causing damage to it.*

Step four

Start the power supply of steam engine, check and adjust connection, check each item on the page to make sure all functions work well.

Important: *before repairing the controller, make sure the steam generator is shut off otherwise the controller may be damaged.*



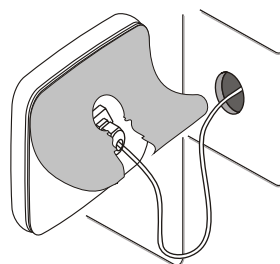
Step five

Remove the paper on the backside.
To achieve good sticking effect, keep the mounting surface clean and dry.

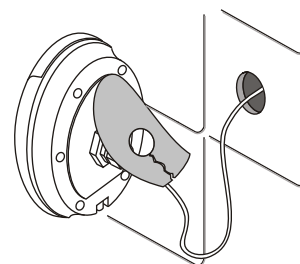
Step six

Locate the display screen in the direction of 12 o'clock, and press tight the controller to stick it to the wall.

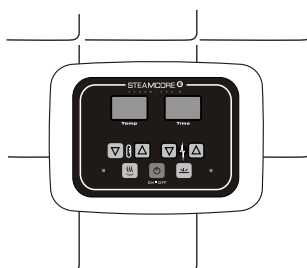
Important: To ensure horizontal installation of the controller, use a level if necessary.



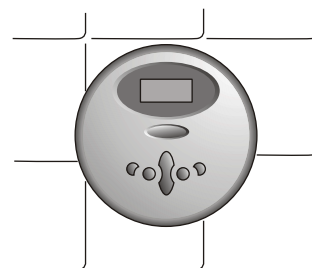
Control Panel (SS I)



Control Panel (SS II)



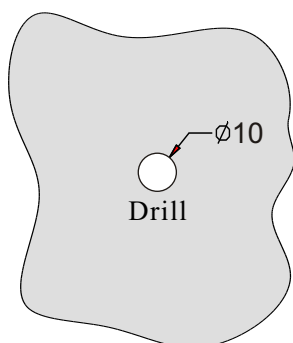
Control Panel (SS I)



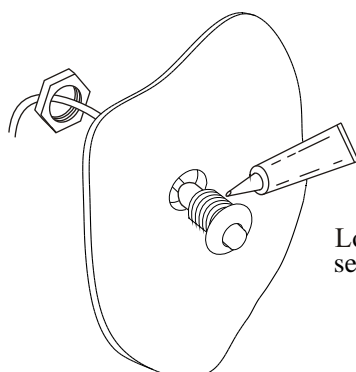
Control Panel (SS II)

Temperature sensor installation(only for SS I Control Panel)

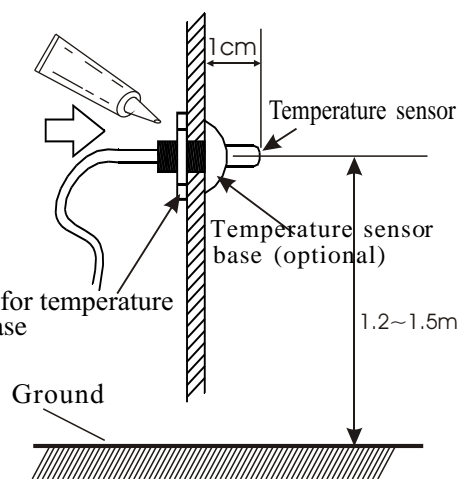
- 1.The position of the temperature sensor should be within a range of 1.2-1.5M above the ground. Try to avoid installing near the steam nozzle or the opening side of the steam room door.
- 2.As shown in Fig.1, drill a small hole of $\Phi 10\text{mm}$ in the selected position.
- 3.Apply a circle of silicone along the edge of the back of the sensor base (as shown in Fig.2).
- 4.Use a locknut to lock the sensor foundation. (As shown in Fig.2)
- 5.Let the temperature sensor go through the back of the sensor holder (As shown in Fig.3)
- 6.The temperature sensor should be installed by extending about 1cm from the front of the room to make sure the speed and accuracy of temperature control.
- 7.Apply silicone to the back and fix the sensor. (As shown in Fig.3)



(Fig.1)



(Fig.2)



(Fig.3)

Illustration of the controller panel (SS I Control Panel)

IN/OUT SHOWER USE





- | | |
|--------------------------------------|-------------------------------|
| ① Power ON/OFF | ⑥ LED SCREEN |
| ② Power Indicator LED | ⑦ Steam Time Adjust Key--LOW |
| ③ Steam Temperature Adjust Key--LOW | ⑧ Steam Time Adjust Key--HIGH |
| ④ Steam Temperature Adjust Key--HIGH | ⑨ Mood Light Indicator LED |
| ⑤ Steam ON/OFF | ⑩ Mood Light ON/OFF |

Operation instruction (SS I Control Panel)



The controller is digital temperature control system which can start, stop or pause in the preset time to keep the temperature in the set number.

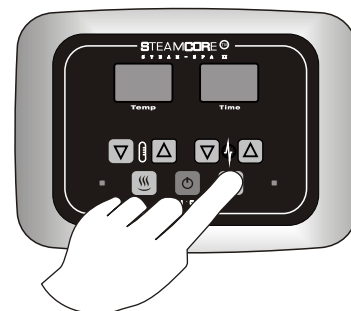
Power ON/OFF

When unit is powered on, power indicator LED should be lit. Press and release  button to activate system and all function buttons. Meanwhile, power indicator LED goes out. Water input steam boil tank automatically, and LED screens display — — . Shut down the system, press  button again. System drains out water in generator water tank automatically. (NOTE: If power indicator LED flashes when system is activated, it reports that generator water tank is lack of water. System shuts down power supply to heater elements, and opens water inlet valve to refill water until reaching required volume.)






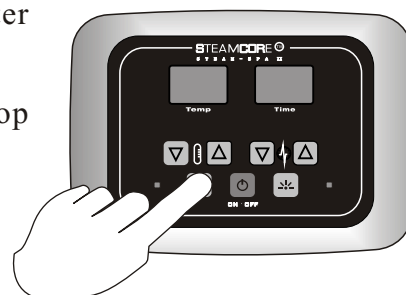
Mood Light

When system is activated, press and release  button to turn on the mood light. Indicator LED on the right of the button should be lit. Press and release  button again to shut down mood light.





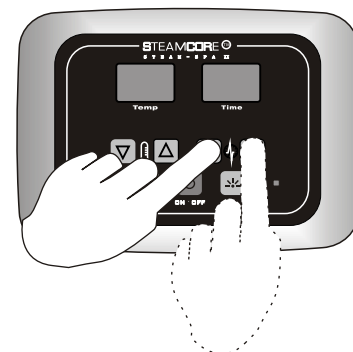
Steam ON/OFF

When unit is powered on, press and release  button, water input steam boil tank automatically, press and release  button, steam starts emitting. Press  button again to stop steam.





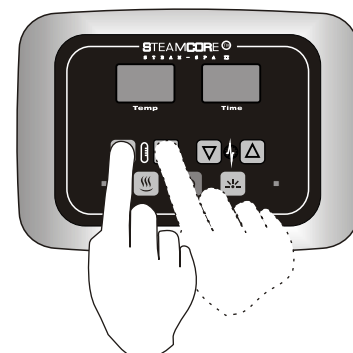
Steam Time Setting

Use  and  buttons to set desired steam time when system is activated. Steam time LED screen shows set time from 1~99 minutes. System shuts down power supply to heater elements automatically when desired steam time is over.





Steam Temperature Setting

Use  and  buttons to set desired steam temperature when system is activated. Steam temperature LED screen shows set steam temperature ranging from 25°C ~68°C or 78 F ~150F. When ambient temperature is higher than desired temperature, system shuts down powersupply to heater elements automatically. Meanwhile, temperature readings on LED screen flash until ambient temperature gets lower than set temperature.



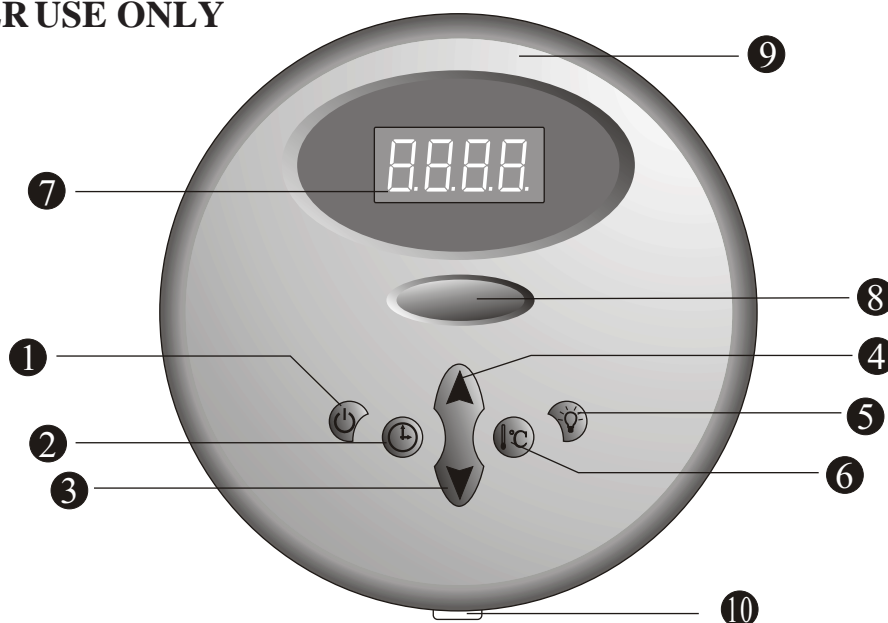
Select Temperature Unit

When system has been turned off, press  and  buttons at the same time, LED screen shows current temperature unit.

TEMP TIME

Illustration of the controller panel (SS II Control Panel)

IN SHOWER USE ONLY



- ① Power switch ② Time set button ③ Time/temperature decrease button
- ④ Time/temperature increase button ⑤ Light function button
- ⑥ Temperature set button ⑦ Digital display screen ⑧ Steamcore
- ⑨ The front decorative panel ⑩ Temperature sensor

Operation instruction (SS II Control Panel)

The controller is digital temperature control system which can start, stop or pause in the preset time to keep the temperature in the set number.

ON/OFF



When it is electrified, the system shuts off all the loads to remain in a waiting state, and the digital tube will display ---- (as is shown in Fig.1). In the waiting state, press button  to turn on the system and the steam function. The default time of starting the steam is 30 minutes and it begins to count down and the default temperature of the steam is 100F. After the system is started, the digital tube will display the current temperature of the environment and the temperature check range is 32F-140F.






Fig.1

User Manual

When the actual temperature is smaller than or equal to 32°F, the digital tube will display 32°F. When the actual temperature is smaller than or equal to 140°F, the digital tube will display 140°F. The last digit displays **F** as the unit of Fahrenheit temperature. The default start time of steam function is 30 minutes. When the steam is starting, there is a shortage of water, the heating wire will stop heating and the water input valve will start automatically. If there is no water tested in 5 seconds or no water coming to reach the full volume in 15 seconds, the digital tube will flash to display **E0** (as shown in Fig.3) to hint mistake. If the water is full, the steam function will return to normal. When the steam function is started, if the temperature of the environment is higher than the set steam temperature, the heating wire will stop heating, the digital tube will flash to display the current environment temperature; when the environment temperature is lower than the set steam temperature, the heating wire will restore heating, the digital tube will display normally current environment temperature.

When the system is started, press  button or when the steam function time is due, the system will be shut. 10 minutes after the system is shut off, the drainage function will be started automatically for 5 minutes.

Time setting

When the machine is started, press  button and the digital tube will display the remaining time of current steam function (as shown in Fig.4), press  button or  button to adjust the remaining time. The adjustment range is 1-99 minutes with 1 minute as one level. If there is no adjustment in 5 seconds, the system will quit the time setting function. The digital tube will restore to display current environment temperature.

Temperature setting




When the machine is started, press  button and the digital tube will display the set steam time (as shown in Fig.5), at the same time the temperature unit will flash to hint that the machine has entered the steam temperature setting function. At this time, press  button or  button to adjust the temperature parameter. The adjustment range is 50-130°F with 1°F as one level. If there is no adjustment in 5 seconds, the system will quit the temperature setting function. The digital tube will restore to display current environment temperature.



Fig 2



Fig.3



Fig.4



Fig.5

Light function


When the machine is started, press  button repeatedly to turn on/off light function. When the light is turned on, the digital tube will temporarily display **LON** (as is shown in Fig.6). When the light is turned off, the digital tube will temporarily display **LOFF** (as is shown in Fig.7).



Fig.6




Fig.7

CAUTION:

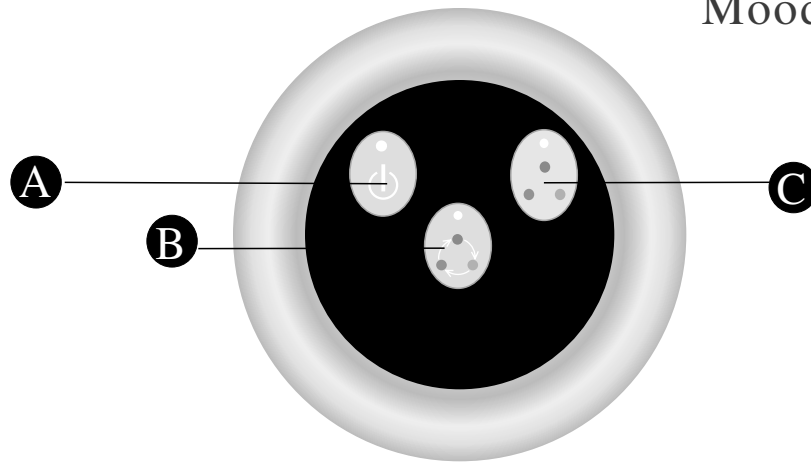
- 1.Please consult your physician before using.If you are pregnant,elderly,have high blood pressure,diabetes, suffering from heart disease, intoxicated,or not in good health, do not use this steam bath.*
- 2.Children must be accompanied with adults when using this steam bath.*
- 3.Steam is hot! Severe burn will occur if you come in contact with the steam head or steam emitting from the steam head.*

Maintenance of the steam generator

 **Important:** *perform water discharge operation after each use.*

1. Wait for the completion of automatic water discharge after each time of using the steam generator to make sure the water in the tank is discharged completely before cutting off power supply.
2. There should not be any leakage or damage among the steam generator , steam nozzle, components and pipes. They should be checked and repaired annually.
3. Clean the water supply pipes of the steam generator once a year.
4. Check all the connections, faucets and connection terminal to see whether they become loose or are damaged due to overheat.
5. Check the furring accumulated in the water tank and electric heating tube. If the furring is thick, dispose it in time (use diluted lemon acid to soak for 15-30 minutes).
6. Remove the water level sensor needle once every 3-4 months to clean scaling.

Mood Light Control










- A** Power on/off **C** Manual colour change
- B** Automatic colour change


Function

1. Manual colour change;
2. Auto colour change
3. 30minutes by default;
4. Auto colour change w/o panel

Instruction

A. Push  button to activate unit, system recalls all functions unfinished the last time used and presets working time to 30 minutes by default; Press  Button to change light colour automatically; Push  button to change Light colour manually; Push  again to deactivate system.

B. Change colour automatically
When unit is powered on, Press  button, light changes colour automatically as preprogrammed and each colour remains for 5seconds. Push  button again, lamp keeps present colour, push  button for the third time, lamp goes back to changing colour automatically.

C. Change colour manually
Each time  button is pressed, light changes one colour in the following order: White- red- purple- blue- yellow- green- orange

Technical Data

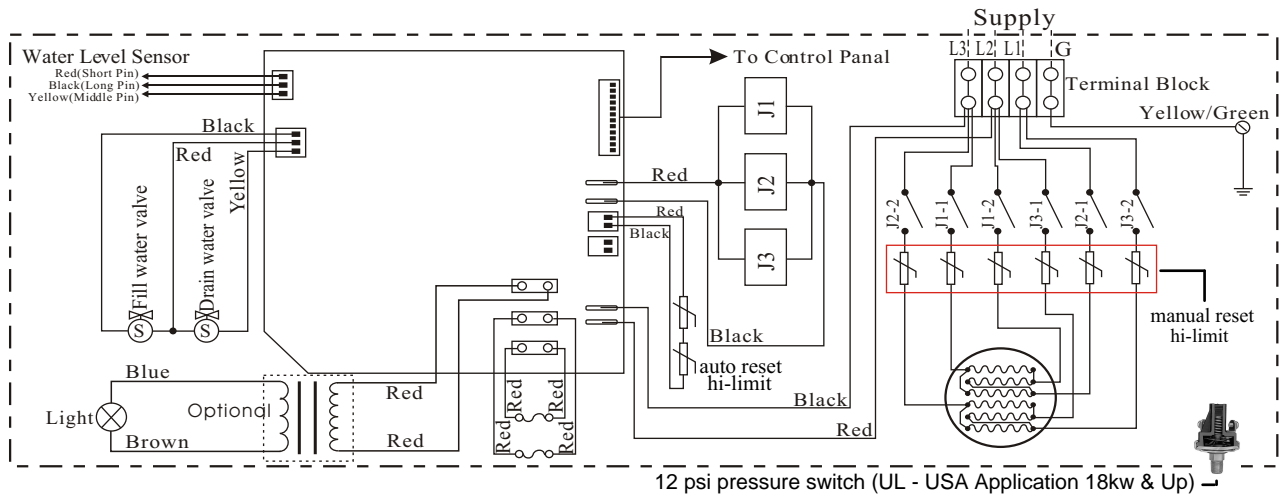
Working Condition			
Voltage inlet	AC 230 V	Rated Frequency	50HZ
Voltage outlet	DC12V	Rated current	300mA
Others	—————		
Max input voltage(DC) of lamp $V_{max} = DC18V$			

Remark:

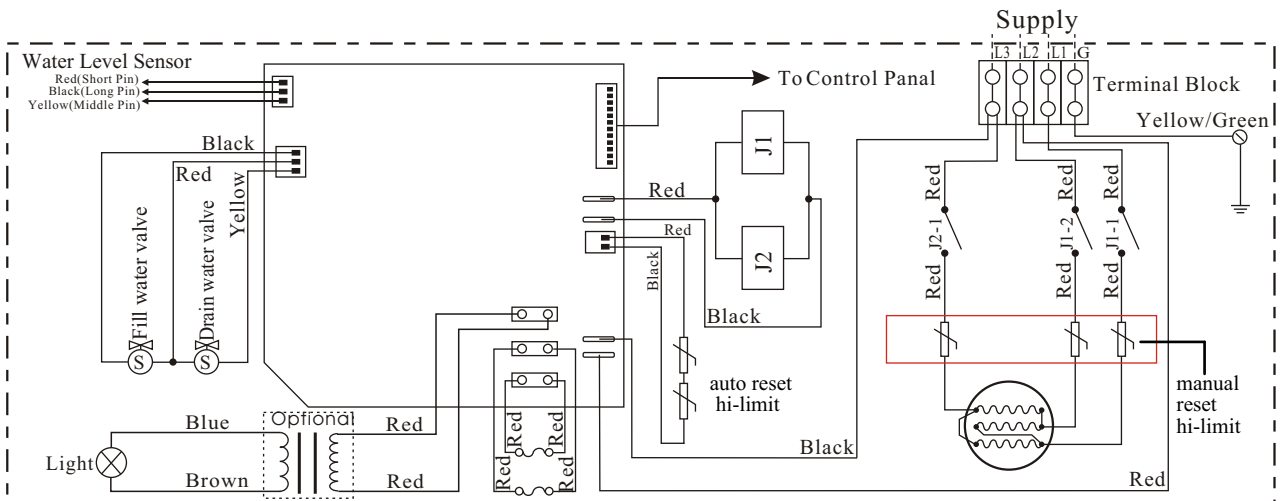
1. Input voltage is associated with the supplied transformer. It can be 110V inlet volts.
2. Unit would be damaged if the input voltage exceed the Max limit.

Steamcore Celg

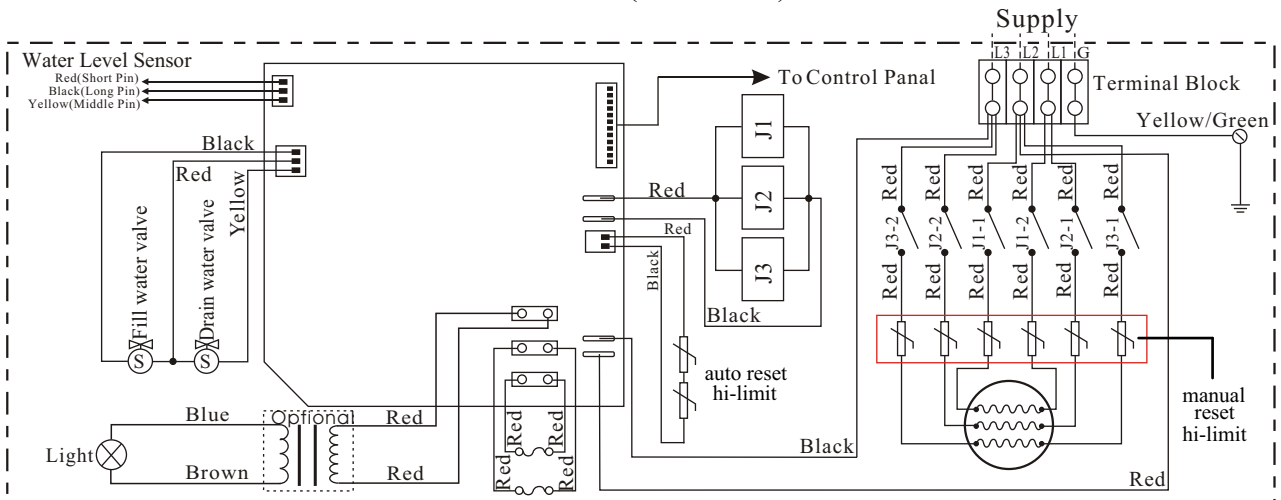
Wiring Diagram 208V (3PH)



Steamcore 15kW / 18kW (208V - 3PH)



Steamcore 9kW (208V - 3PH)



Steamcore 10.5kW / 12kW / 13.5kW (208V - 3PH)

Aroma Therapy Pure Oils Available

- Eucalyptus
- Lavendar
- Relaxation Blend
- Sensuality Blend
- Stress Relief Blend
- Call for accessories.

Commercial units available up to 600 volts.

For warranty details see warranty card. All steamers meet Canadian, USA & European safety standards. Saunacore reserves the right to change, alter or discontinue models. Items and colors may not be exactly as shown. Sizes are approximate. Not liable for any misprint. Consult with physician before use.

Steam generators over 40 amps may require more than one dedicated main power supply. Call for details.

Note: Saunacore reserves the right to change, alter or discontinue models. Sizes are approximate. Not liable for any misprint.

Residential Model #	Watts	Recommended Max. C.U.Ft.	Volts / ph / AMPS	Steam Line	Size of Line	1/2" Standard Steam Head	3/4" Elegance Steam Head
KWS 2	2000	30	120V / 1 / 16.8 240V / 1 / 8.4	1	1/2"	1	1
KWS 3	3000	50	240V / 1 / 12.5	1	1/2"	1	1
KWS 4.5	4500	65	240V / 1 / 18.75	1	1/2"	1	1
KWS 6	6000	175	240V / 1 / 25.0	1	1/2"	1	1
KWS 7.5	7500	250	240V / 1 / 31.3	1	1/2"	1	1
KWS 9	9000	375	240V / 1 / 37.5	1	1"	2	1
KWS 10.5	10500	450	240V / 1 / 43.8	1	1"	2	1
KWS 12	12000	525	240V / 1 / 50.0	1	1"	2	1
Commercial Model #	Watts	Recommended Max. C.U.Ft.	Volts / ph / AMPS	Steam Line	Size of Line	1/2" Standard Steam Head	3/4" Elegance Steam Head
KWS 9	9000	375	240V / 1 / 37.5 208V / 1 / 43.3 208V / 3 / 24.0 450V / 3 / 11.6 575V / 3 / 9.1	2	1"	4	2
KWS 10.5	10500	450	240V / 1 / 43.8 208V / 1 / 50.5 208V / 3 / 29.2 450V / 3 / 13.5 575V / 3 / 10.6	2	1"	4	2
KWS 12	12000	525	240V / 1 / 50.0 208V / 1 / 57.7 208V / 3 / 33.4 450V / 3 / 15.4 575V / 3 / 10.6	2	1"	4	2
KWS 13.5	13500	625	240V / 1 / 56.3 208V / 1 / 64.9 208V / 3 / 37.5 450V / 3 / 17.3 575V / 3 / 13.6	2	1"	4	2
KWS 15	15000	685	208V / 3 / 41.7 450V / 3 / 17.3 575V / 3 / 13.6	2	1"	4	2
KWS 18	18000	750	208V / 3 / 50.0 450V / 3 / 19.3 575V / 3 / 15.1	2	1"	4	2
KWS 22.5	22500	925	208V / 3 / 62.5 450V / 3 / 28.9 575V / 3 / 22.6	3	1"	6	3
KWS 27	27000	1125	208V / 3 / 75.0 450V / 3 / 34.7 575V / 3 / 27.1	3	1"	6	3
KWS 31.5	31500	1275	208V / 3 / 87.5 450V / 3 / 40.5 575V / 3 / 31.7	4	1"	8	4
KWS 36	36000	1400	208V / 3 / 100.0 450V / 3 / 46.2 575V / 3 / 36.2	4	1"	8	4

Commercial units are available in Bronze, Silver and Elegance packages

WARNING! SEVERAL POWER SUPPLY. CHECK THAT THERE IS NO CHARGE IN THE MACHINE BEFORE DOING ANY MAINTENANCE WORK!

Checking and fault-finding.

In the event of faulty operation, first check the following:

- are the control panel and steam generator wired up in accordance with the wiring diagram?
- is the steam generator correctly installed in accordance with these instructions?
- does the drainage pipe slope down properly towards the drain?
- is the filter clogged? The filter is located at the point where incoming water is fed into the generator. To clean the filter, disconnect the feed pipe, rinse it free from particles of calcium carbonate and other deposits.
- are there any sharp bends in the steam pipe? (the minimum permitted radius of bends is 50 mm, 2")
- if there is a tap on the water supply to the steam generator, make sure this is not closed.

Checklist

with alternative causes of problems and suggested actions.

Loud noises in the feed pipes when the solenoid valve opens or closes.

Cause: The steam generator feed pipes are not sufficiently secure.

Solution: Fix the pipes securely to the wall with pipe clips.

Cause: "Recoil" problems in the feed pipe (Pipe hammer).

Solution: Replace a metre-long length of piping nearest the steam generator with flexible piping, for example, reinforced rubber hosing, which will withstand the pressure.

The steam room requires an abnormally long time to heat up.

Cause: The generator is not powerful enough. See table.

Solution: Replace the steam generator with one with a higher heat output.

Cause: Excessive ventilation in the steam room.

Solution: Reduce the ventilation to evacuate 10–20 cubic metres (1.3–26 cub. yd) of air per person per hour.

Cause: Blown fuse in the main fuse box.

Solution: Replace the fuse.

Cause: The ambient temperature is lower than 15°C (59°F).

Solution: Increase the ambient temperature or replace the steam generator with a more powerful one.

Cause: Heating element is broken.

Solution: Replace element.

Cause: The thermostat sensor is too close to the steam jet.

Solution: Move the sensor or change the direction of the steam jet.

Hot water runs from the steam head. Little or no steam in the steam room.

Cause: The solenoid valve for incoming water has stuck, due to accumulated deposits of foreign bodies or an electrical malfunction.

Solution: Remove the valve and clean it, or rectify the electrical malfunction.

Cause: The solenoid valve is broken.

Solution: Replace the valve.

Cause: Malfunction in the circuit board.

Solution: Replace the circuit board.

Erratic steam production right from the start.

Cause: The thermostat sensor is wrongly placed in relation to the steam jet.

Solution: Move the sensor or alter the direction of the steam jet.

Cause: Calcium carbonate or other foreign bodies in the filter.

Solution: Remove and clean the filter.

Neither steam nor heat is generated in the steam room.

Cause: Blown fuse in the mains fuse box.

Solution: Replace the fuse.

Cause: The water is not reaching the steam generator.

Solution: Open the tap(s) connected to the piping to allow incoming water to flow into the steam generator.

Cause: The control panel is incorrectly set.

Solution: Check the time and temperature on the control panel.

Cause: The filter is clogged.

Solution: Remove the filter which is placed in the connection for incoming water. Clean off any metal filings or other foreign bodies.

Cause: The solenoid valve for water supply has stuck.

Solution: Remove the solenoid valve and clean off any metal filings or other foreign bodies.

Cause: Excessive calcium carbonate deposits in the steam generator's water reservoir.

Solution: Replace the entire water reservoir, including heating elements and electrodes.

Cause: The steam generator is wired up for the wrong voltage.

Solution: Check the voltage and the connection to the generator – see diagram.

Cause: The temperature limit control has been triggered.

Solution: Check and remedy any faults on the steam pipe, such as a blockage due to several sharp bends, water pockets or greatly reduced internal diameter. The tank may also be clogged with limescale.

Cause: Flaw in the circuit board, control panel or magnetic contactor.

Solution: Replace the faulty component.

Temperature cut-off is activated.

Cause: The steam pipe is blocked.

Solution: Remove the blockage.

Cause: The internal diameter of the steam pipe is considerably reduced.

Solution: Replace the pipe or the pipe joint which is causing the reduction (internal diameter must be at least 12 mm, ½").

Cause: Sharp bends ("elbows") along the steam pipe.

Solution: Get rid of "elbows" in the pipe. Bends are to be gently rounded (minimum radius 50 mm, 2").

Cause: Large water pocket somewhere along the steam pipe.

Solution: Adjust the steam pipe to eliminate the water pocket.

Cause: Excessive calcium carbonate deposits in the steam generator's reservoir.

Solution: Replace the entire reservoir, including elements and electrodes.

The steam room maintains the desired temperature (40–50°C, 105–122°F), but no steam is produced.

Cause: Insufficient ventilation in the steam room.

Solution: Increase ventilation. The ventilation is insufficient if less than 10–20 cubic metres (1.3–26 cub. yd) of air per person per hour is evacuated via the outlet vent. This situation may occur if the outlet vent is not connected to some form of mechanical extractor fan – or if the ventilation duct is blocked by a water pocket. (Commercial applications)

Cause: The air coming into the steam room is too warm.

Solution: Reduce the intake air temperature to 35°C (95°F).

Cause: The ambient temperature is higher than 35°C (95°F).

Solution: Ensure that the ambient temperature does not exceed 35°C (95°F).

Cause: The thermometer is faulty or wrongly placed.

Solution: The thermometer should be placed approximately (72") above floor level and as far away from the steam jet as possible.

Hot water comes out of the steam head in spurts or in a slight, even flow mixed with steam.

Cause: Small water pocket along the steam pipe.

Solution: Eliminate the water pocket.

Cause: The steam pipe is uninsulated along too great a portion of its length.

Solution: Insulate the steam pipe. A continuous trickle of hot water from the steam generator's drainage pipe.

Cause: The solenoid valve for automatic emptying has stuck.

Solution: Switch off the steam generator. See what happens again after an 80-minute pause. If the fault persists, remove the solenoid valve for the automatic emptying function and clean it.

User Manual

Common trouble shooting methods

To facilitate your use and maintenance of sauna room, the following common trouble shooting methods are listed for reference.

Troubles	Causes of troubles	Trouble-shooting methods
The machine does not start when electrified	<ol style="list-style-type: none"> 1.The fuse is burned. 2.The wire connection terminal becomes loose. 3.Not good contact in the connection wire between the controller and the steam engine. 	<ol style="list-style-type: none"> 1.Change the fuse (on the shell 0.8A/ 250V) 2.Plug tight the wire connection terminal 3.Make sure the steam engine and the controller come into good contact
Electricity leakage switch breaks automatically	<ol style="list-style-type: none"> 1.The wire connector is dampened or damaged. 2.The heating tube breaks 	<ol style="list-style-type: none"> 1.Check whether the wire connector is dampened or damaged, and dry with dryer if dampened. 2.Change a heating tube.
When the machine is started, hot water comes out with little or no steam	<ol style="list-style-type: none"> 1. The water drainage valve is broken. 	<ol style="list-style-type: none"> 1. Change a water drainage valve.
The display screen on the control panel does not display	<ol style="list-style-type: none"> 1.The power wire is not connected well or not in good contact. The connection plug between the control panel and the electrically-controlled box becomes loose. 2.Trouble with plugboard. 	<ol style="list-style-type: none"> 1.Check whether the connection plug between the control panel and the electrically-controlled box has become loose, and whether the power circuitry has good contact 2.Change a plugboard.
Water leakage	<ol style="list-style-type: none"> 1.The water pipe connector becomes loose or the pipe breaks 2.Water leakage in the water input valve or the water drainage valve 	<ol style="list-style-type: none"> 1.Tighten the loose connector, and change the broken pipe. 2.Change the water input valve or the water drainage valve.
No steam when starting the machine	<ol style="list-style-type: none"> 1.No electricity. 2.No water. 3.The set temperature is too low 4.Trouble with wire. 	<ol style="list-style-type: none"> 1.Check the power supply 2.Check the water input pipe and water input valve 3.Reset the temperature 4.Contact the distributor
The steam does not come out, the water sounds in the machine	<ol style="list-style-type: none"> 1. The steam pipe is jammed. 	<ol style="list-style-type: none"> 1. Cut power supply to check whether the steam pipe is smooth.
The light can not be turned on	<ol style="list-style-type: none"> 1. The fuse is burned. 2. The light is broken 3. The wire is broken 4. The plug does not have good contact 	<ol style="list-style-type: none"> 1.Change the fuse (on the shell 1A/250V) 2. Change a light bulb. 3. Change wire. 4. Make the contact good.
The display box displays normally with no steam input	<ol style="list-style-type: none"> 1.Too much pressure inside the steam engine, so the system breaks for heat protection. 2.Wire is broken for heat protection. 	<ol style="list-style-type: none"> 1.Check the steam transport pipe and restore automatically after heat protection becomes cool. 2.Check the heat protection wire to make sure the connection is good.

Pro-Series Steambath Generator Limited Warranty

Saunacore warrants these products to be free from defects in material and workmanship and agrees to remedy any such defect. This warranty does not apply outside the boundaries of the United States or Canada, or to any product which in our sole opinion has been improperly installed, or subject to willful abuse, misuse, alteration, and shipping damages during the period of coverage. Postage and handling charges of the product to and from Saunacore for warranty repairs and for any related charges for the installation / removal of these products are NOT included in your warranty. Warranty service can be obtained by sending your product to Saunacore (Call 905-951-6662). Warranty repairs must be done only by Saunacore. Proof of purchase and a serial number of the product will be required before any services are performed. Warranty applies only to the original consumer purchaser, warranty is non-transferable.

For warranty repair, the steam generator must be returned to Saunacore with an Return Materials Authorization is to be obtained by the original consumer purchaser and must be shown on all correspondence and packaging, without this RMA # returns for repairs will NOT be accepted.

Warranty is non-transferable from original consumer purchaser. Current warranty claim fee effective 01/01/07.

Controls & Cables: One Year Parts and Labor

Steam Generator: First Years Parts & Labour.

Second Year to Fifth Year Warranty Claim Fee (Admin/ Deductible Fee) \$150.00

(Note: Warranty does not apply to damages caused by Calcium, Lime Stone build up or corrosion to the steam generator).

OPTION (Commercial Steamer Maintenance): commercial Steambath Generator, there is a service charge of \$500.00 per year due at the beginning of every year. This cost will include 2 maintenance services per year for your Steamer, including parts, repairs and labour.

Warranty Registration Card

Model # _____ Serial # _____

Purchase Date _____

Dealer Name and Address

Owner Name and Address

NOTE: A COPY OF THE RECEIPT MUST ACCOMPANY THIS WARRANTY CARD.