

# Steam@home<sup>®</sup>

## Residential Steambath Generator Systems

### Installation, Operation & Maintenance Manual

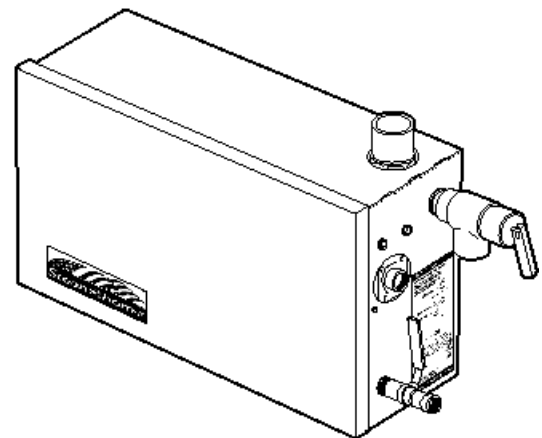
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**MODELS:**

- LX1A1
- LX2A1
- LX2C1
- LX3C1

**BOX CONTENTS:**

- Steam Generator
- On/Off Switch
- Switch Hose
- Steam Head / Escutcheon
- Installation & Operation Manual
- Warranty
- Steamline Insulator



**LEAVE THIS MANUAL WITH OWNER. READ ALL INSTRUCTIONS BEFORE INSTALLING, OPERATING OR SERVICING!**

**IMPORTANT NOTE:**

As you follow these instructions, you will notice warning and caution symbols. This blocked information is important for the safe and efficient installation and operation of this generator. These are two types of potential hazards that may occur during this installation and operation:



states a hazard may cause serious injury or death if precautions are not followed.



signals a situation where minor injury or product damage may occur if you do not follow instructions.

Another footnote we would like to identify is:

**IMPORTANT NOTE:**

This highlights information that is especially relevant to a problem-free installation.



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## **Before Installing**

### **IMPORTANT:**

Read these instructions before installing or servicing. Although this Steam@home has been fully qualified for shipment by the factory, the following must be reviewed for proper, safe and enjoyable steam bathing.

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

Insure steambath generator has been correctly selected for the steambath enclosure. Pay particular attention to enclosure material. If any questions, please refer to the sizing guide enclosed. (see page 9)

Steam@home is primarily designed to service acrylic or fiberglass enclosures as noted in the sizing guide (see pg. 9). Installation for steam rooms using larger steambath generators: See Publication PUR 100258.

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



The Steam@home generator is to be connected to a grounded receptacle with GFCI (Ground Fault Current Interrupt) in accordance with NEC (National Electrical Code).

## **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 steam containment and that the ceiling be sloped towards a rear or side wall.
3. Install anti-skid strips or equivalent on enclosure floor for safety
4. The enclosure should have a floor drain
5. 120V models are supplied with a flexible grounding-type power cord suitable for connection to a properly rated 120V grounded receptacle.

**NOTE:** 120V / 1.7kW rated unit draws 14 Amps single phase and requires a 15 Ampere-rated grounding-type receptacle.  
120V / 2.0 kW rated unit draws 17 Amps single phase and requires a 20 Ampere-rated grounding-type receptacle.

6. 240V models require a suitable grounding-type plug be wired to the power cord.

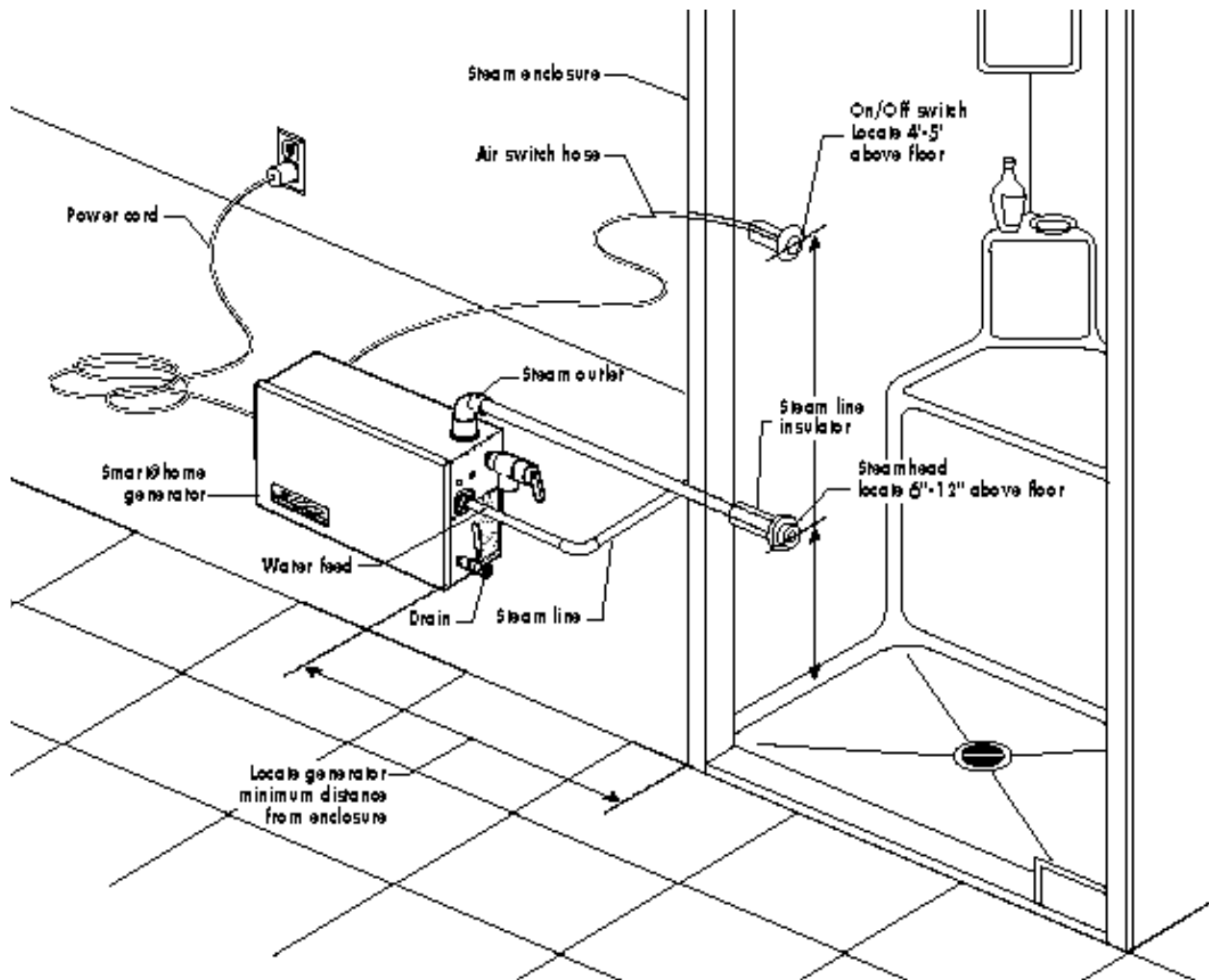
**NOTE:** 240V/ 2.4 kW rated unit draws 10 Amps single phase.  
240V / 3.0 kW rated unit draws 13 Amps single phase.

## *Locating the Steam Generator Unit*

Steam@home should be installed in close proximity to the steam chamber. Its small size makes site selection easy. Typical locations include: closet, vanity cabinet or as near as practical outside the enclosure.

1. Do not install steambath generator inside steam room.
2. Do not install steambath generator outdoors.
3. Do not install steambath generator in any unheated location, including an attic or basement where water could freeze.
4. Do not install steambath generator near combustible or corrosive materials and chemicals.
5. Install steambath generator on a solid and level surface.
6. Install steambath generator in an upright position (as shown).
7. Provide access to front and ends of steambath generator for servicing (see pg. 5).
8. Steam line, safety valve and drain valve become hot during operation. Provide appropriate protection.
9. Steam@home's on/off controls are designed to be placed inside the steam room (See Installation section).

## *Typical Steam@home Installation*



## Installation

### Plumbing

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.

### Water Supply (3/8" NPT)

1. Connect hot or cold water line. Hot water line is preferable. Hot water should not exceed 160° F.
2. Provide a shut off valve in the supply line.
3. Do not overheat inlet of 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 supply.
6. Incoming water supply should not exceed 60 PSIG.

For best performance, water pressure should be limited to approximately 15-20 PSIG.

### Steam Outlet (3/4" Copper Sweat)

1. Do not install a valve in steam line. Flow of steam must be unobstructed.
2. Use brass or copper pipe from unit to steam head.
3. Insulate steam line with pipe insulation rated 250° F or higher.
4. **IMPORTANT:**  
Pitch steam line to avoid valleys and trapping of condensate.

### Steam Head (see Diagram pg. 5)

1. Locate steam head 8 to 12 inches above floor.
  - For tub/shower enclosures, install steam head 8 inches (20cm) above tub top ledge.
2. If steam room is provided with seating, locate steam head as far away from seat as possible.
3. Install steam head with steam emission slot facing downward.
4. **IMPORTANT:** 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.

### Drain (1/4" NPT)

**NOTE:** A drain valve is provided to facilitate servicing.

Where local codes permit, provide a drain line connection from steambath generator drain valve. Check local plumbing code for receptor, trap and vent requirements. Unit drains by gravity.

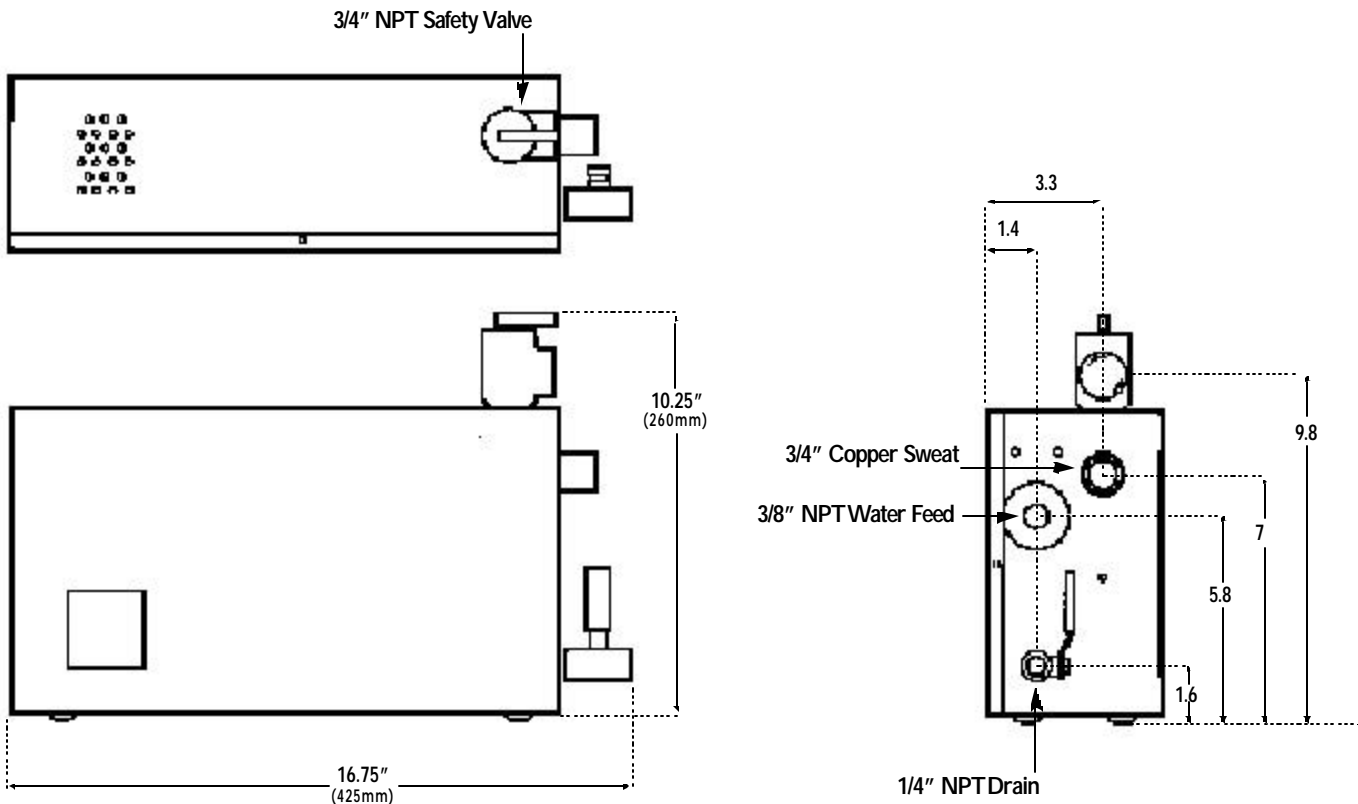
### Safety Valve (3/4" NPT)

Where permitted by local codes, provide a connection for safety valve.



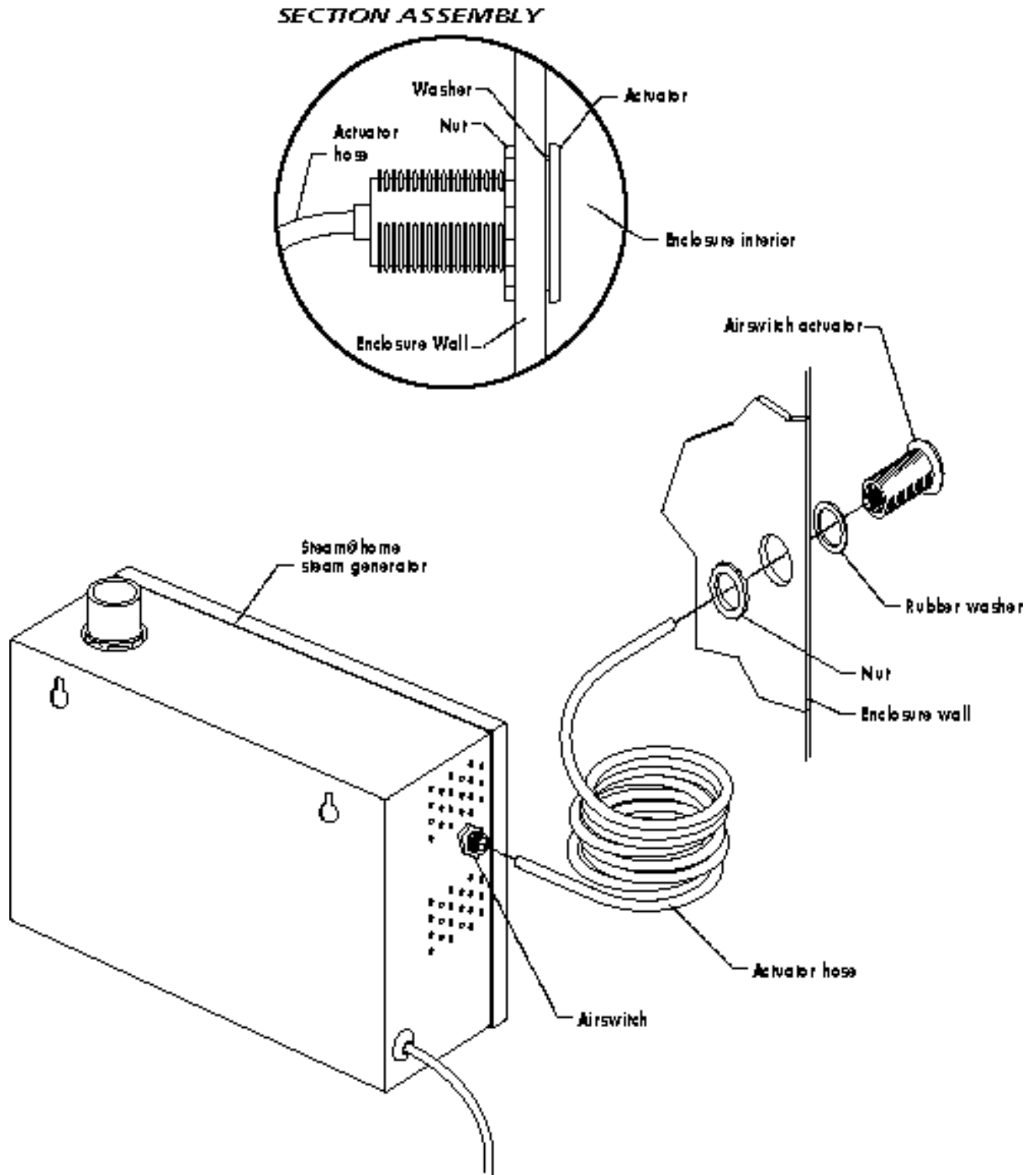
**WARNING:** To insure proper and automatic safety valve operation,  
**DO NOT connect a shut off valve or a plug at safety valve outlet.**

**Installation and Plumbing Dimensions**



**Steamhead Assembly**

**Assembly of the On/Off Actuator and Actuator Hose**



NOTE: Use caution not to kink Actuator Hose

## Electrical

All electrical wiring to be installed by a qualified electrician in accordance with local and national codes.

### Power Wiring

For 120V Cord Connected Units

1. Insure a suitably rated 120V properly grounded receptacle with GFCI (Ground Fault Current Interrupt) is provided for the attachment plug cap configuration.

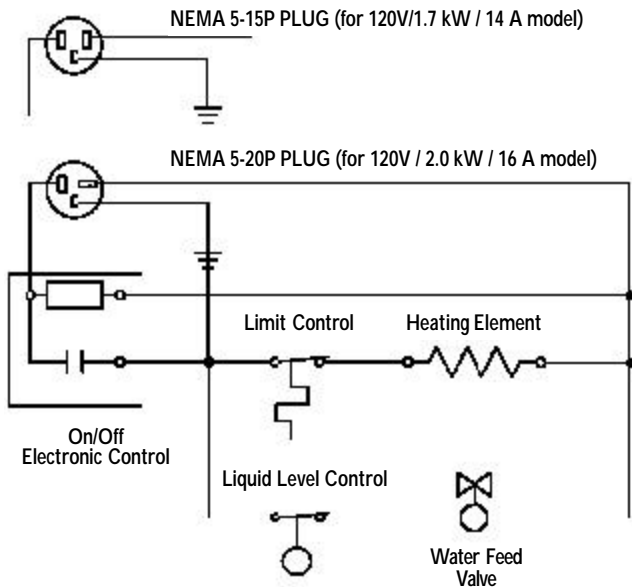
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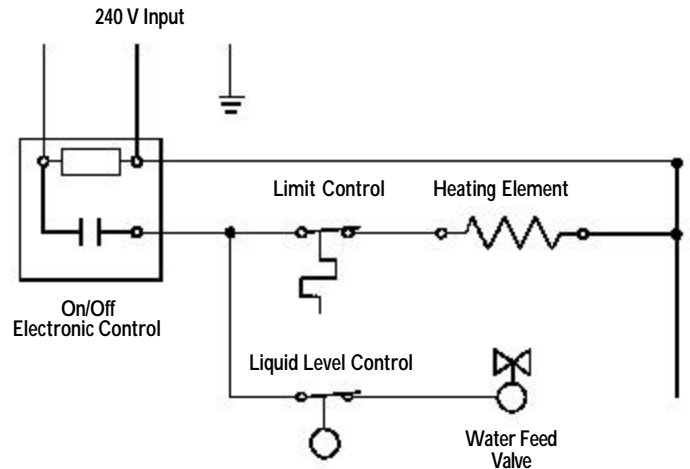
For 240V

1. Check power voltage to assure the ratings indicated on the data plate match electrical supply.
2. Install a suitably rated dedicated circuit breaker or equal between supply and unit.
3. All 240V units have provision for incoming field wiring, inclusive of a connection for equipment grounding

### Wiring Schematic for Models LX1A1 and LX2A1



### Wiring Schematic for Models LX2C1 and LX3C1



## Check Out and Operation

### STARTING

- After depressing the on/off actuator steam will begin to appear within a few minutes.
- Standard operating cycle is 90 minutes. Depressing on/off actuator once while unit is steaming will de-energize unit and will stop steam flow. Repressing on/off actuator will re-activate timing cycle and initiate steam flow for an additional 90 minutes.
- Steam will shut-off automatically after 90 minutes if on/off actuator is not re-activated during steaming.
- To clear steam from within the enclosure area, turn shower on before opening enclosure door.

### Maintenance

Steam@home steambath generators require little maintenance. Other than periodic draining, maintenance procedures are not required. Every month, or more often in "hard" water areas shut off power supply at the circuit breaker, then fully open the drain valve to flush out accumulated materials, salts and other particles which are natural by-products of boiling water. Delay draining a minimum 2 hours immediately after steaming to allow tank water to cool.



### WARNING:

Draining immediately after a steam cycle may expose PVC and other piping to high temperature water. Check local codes. Draining to occur a minimum of (2) hours after steaming to allow tank water to cool. The unit will refill automatically when power is reapplied.



## Sizing Chart

The Steam@home® model selected depends on the enclosure volume. Steam@home is not suitable for enclosures of more than 7 ft. (2.1 meters) height. Enclosure material is to be acrylic, fiberglass or cultured marble. See Mr. Steam's MS and SUPER steambath product lines for larger enclosures or other materials of construction.

1. Measure the Length, Width, and Height in feet (meters) of the acrylic steam shower or tub/shower being used:

L	
W	
H	
a	

2. Multiply the Length x Width x Height to give you the steam enclosure volume.

Steam@home is intended for use with acrylic enclosures of 100 cubic feet (2.8 cubic meters) or less. If your basic steam enclosure volumes total meets this criteria you must only now select the desired voltage..

Model No.	Suggested Max Vol Cubic Feet (Cu. Meters)	kW Rating	Volts 1PH
LX1A1	65 (1.83)	1.7	120V
LX2A1	85 (2.39)	2.0	120V
LX2C1	100 (2.81)	2.4	240V
LX3C1	125 (3.51)	3.0	240V

### IMPORTANT

The above selection formula for sizing the steambath generator are recommendations only.

It is best that you consult your professional bath planner to evaluate the particular requirements before a Steam@home unit is selected.

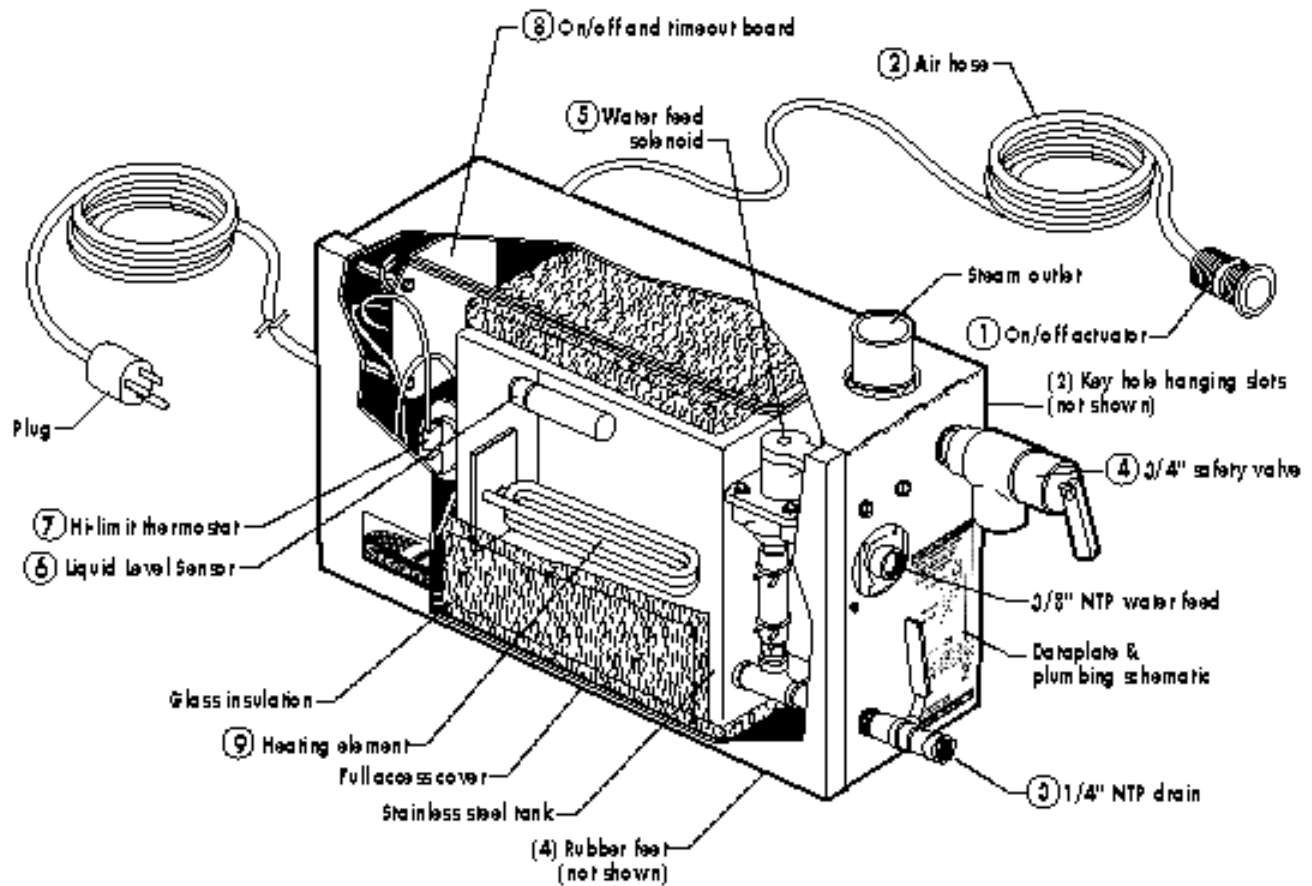
Steam@home personnel will review the appropriateness of the unit selected as long as we receive complete information, including working drawings, specifications, and pertinent electrical and construction details from the owner, architect, or engineer. Otherwise, the manufacturer disclaims responsibility for the sizing of a unit selected.

For assistance call 1-800-76-STEAM

## **Trouble Shooting**

<b>Problem</b>	<b>Probable Cause</b>	<b>Suggested Remedy</b>
Steam is intermittent	There is a valley (trap) in steam line, allowing water to block flow of steam	Correct pitch of steam line
	Loose electrical connection	Check wiring
	Drain is leaking	Check drain valve
	Safety valve is leaking	See below
Safety valve or tank is leaking	There is a valley (trap) in steam line	Check plumbing
	Clogged steam line	Check steam line
	Clogged steam outlet	Check steam outlet
Fuse blows out or circuit breaker trips	Fuse or circuit breaker is undersized	Check current rating
	Over voltage (current)	Check voltage (current)
	Short circuit	Check wiring
Heating element burns out	Check voltage	See nameplate markings
	Loose electrical connection	Check wiring
	Calcium build-up element	Follow maintenance instructions

*Steam@home* Replacement Parts List



Item #	Part #	Description	Model(s)
1	103739-4	On/Off Air Switch	ALL MODELS
2	103739-3	30' Hose	ALL MODELS
3	99806	1/4" Drain Valve	ALL MODELS
4	99297	3/4" Safety Valve	ALL MODELS
5	100479	Solenoid Valve 120V	LX1A1, LX2A1
5	100479A	Solenoid Valve 240V	LX2C1, LX3C1
6	103741	Liquid Level Sensor	ALL MODELS
7	100540	Hi-Limit Thermostat	ALL MODELS
8	103739-1	90 Minute Board 120V	LX1A1, LX2A1
8	103739C-1	90 Minute Board 240V	LX2C1, LX3C1
9	19011AM	Heating Element 1.7 kW 120V	LX1A1
9	19021AM	Heating Element 2.0 kW 120V	LX2A1
9	19021CM	Heating Element 2.4 kW 240V	LX2C1
9	19031CM	Heating Element 3.0 kW 240V	LX3C1