




Installation, Operation & Maintenance Manual


Steam@Home[®]
RESIDENTIAL STEAM GENERATOR SYSTEMS
Models: SAH3000, SAH4500, SAH6000

mr.steam[®] | Feel Good Inc.

READ ME FIRST!

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, operation and maintenance of this generator. These are types of potential hazards that may occur during this installation and operation:

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


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

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

IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

1. READ AND FOLLOW ALL INSTRUCTIONS

2.  **WARNING** To reduce the risk of injury, children under the age of 16 should not use the steam bath.

3.  **WARNING** To reduce the risk of injury:

- A. The wet surfaces of steam enclosures may be slippery. Use care when entering or leaving.
- B. The steam head is hot. Do not touch the steam head and avoid the steam near the steam head.
- C. Prolonged use of the steam system can raise excessively the internal human body temperature and impair the body's ability to regulate its internal temperature (hyperthermia). Limit your use of steam to 10-15 minutes until you are certain of your body's reaction.

D. Excessive temperatures have a high potential for causing fetal damage during the early months of pregnancy. Pregnancy or possibly pregnant women should consult a physician regarding correct exposure.

E. Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a steambath.

F. Persons using medication should consult a physician before using a steambath since some medication may induce drowsiness while other medications may affect heart rate, blood pressure and circulation.


4. SAVE THESE INSTRUCTIONS

HYPERTHERMIA

The causes, symptoms, and effects of hyperthermia may be described as follows: Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6° F. The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting.

The effects of hyperthermia include:

- a) Failure to perceive heat
- b) Failure to recognize the need to exit the steambath
- c) Unawareness of impending risk
- d) Fetal damage in pregnant women
- e) Physical inability to exit the steambath
- f) Unconsciousness.

 **WARNING** The use of alcohol, drugs, or medication can greatly increase the risk of hyperthermia.

↓ A peel-off warning label has been provided in the Information envelope. This label is to be applied to the wall of the installed shower or steam enclosure in a conspicuous location.

WARNING

REDUCE THE RISK OF OVERHEATING AND SCALDING

1. EXIT IMMEDIATELY IF UNCOMFORTABLE, DIZZY OR SLEEPY.
STAYING TOO LONG IN A HEATED AREA IS CAPABLE OF CAUSING OVERHEATING.
2. CHILDREN UNDER THE AGE OF 16 SHOULD NOT USE THE STEAM BATH.
3. CHECK WITH A DOCTOR BEFORE USE IF PREGNANT, DIABETIC, IN POOR HEALTH OR UNDER MEDICAL CARE.
4. BREATHING HEATED AIR IN CONJUNCTION WITH CONSUMPTION OF ALCOHOL, DRUGS, OR MEDICATION IS CAPABLE OF CAUSING UNCONSCIOUSNESS.
5. DO NOT CONTACT STEAM HEAD OR STEAM AT THE STEAM HEAD.

REDUCE THE RISK OF SLIPPING AND FALL INJURY

1. USE CARE WHEN ENTERING OR EXITING THE STEAM ROOM. FLOOR MAY BE SLIPPERY.

NOTE: FOR ADDITIONAL SAFETY CONSIDERATIONS SEE OWNER'S MANUAL WHICH IS KEPT: _____

THE OWNER'S MANUAL CAN BE FOUND AT WWW.MRSTEAM.COM

USE OF STEAM ROOM IN CONJUNCTION WITH CONSUMPTION OF ALCOHOL CAN BE DANGEROUS AND CAN RESULT IN INJURY THROUGH SLIP AND FALL OR OTHERWISE.

Steam@home® Residential Steambath Generator Systems

INSTALLATION, OPERATION & MAINTENANCE MANUAL

MODELS: SAH3000, SAH4500, SAH6000

MODEL _____ SERIAL NO. _____

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CORRECT SIZING IS IMPORTANT

! WARNING Selection of the appropriate model is important to effectively match the heating requirements of the steam room to the steam bath generator. Do not use a particular SAH model steam generator with a room whose “total room volume” is less than the range shown in the SAH model steam generator sizing chart below. Selection of a model with a “total room volume” rating greater than the “total room volume” may cause excessive temperature. Do not use SAH model steam generators in a room with a “total room volume” of less than 60 cubic feet.

SELECT YOUR STEAM@HOME

Materials of construction and room size affect the steam generator model selection.

To determine the “total room volume” multiply length x width x height of the steam room.

STEAM@HOME GENERATOR SIZING CHART

Total Room Volume*	Acrylic/Fiberglass	Ceramic Tile**
60 – 75 cu. ft.	SAH3000	SAH3000
76 – 110 cu. ft.	SAH3000	SAH4500
111 – 150 cu. ft.	SAH3000	SAH6000

* For rooms with “total room volumes” greater than 150 cu. ft. refer to MrSteam MS series of residential steam bath generators

** For all other room materials refer to Mr. Steam MS series of residential steam bath generators


! WARNING In considering a purchase of this steam-bath system, please note that if you are pregnant, have a coronary condition, are in poor health, are being treated for any other medical condition, or are using medication or drugs, MrSteam recommends that you obtain the approval of a physician before use. For information about this product and safety issues, please call us at 1.800.76.STEAM or log onto www.mrsteam.com for a copy of the Installation, Operation & Maintenance Manual.

IMPORTANT NOTE: SAH Model steam generators should not be used for rooms constructed of natural stone, glass block and/or glass tile and/or for rooms having a ceiling height in excess of 8 feet.

IMPORTANT NOTE: The “total room volume” allows for a maximum of 60 feet of insulated steam line from the SAH generator to the steam room. If the 60 foot line is exceeded refer to MrSteam MS series of residential steam bath generators. When locating the steam generator consideration of control location must be taken into account. The maximum length for a control cable is 60 feet. A 30 foot cable is standard. Contact MrSteam to purchase the optional 60 ft. cable (PN 103978-60)

! CAUTION Consult with supplier of acrylic and fiberglass enclosures for recommended steamhead location. Use supplied Acrylic Shield PN MS-103938. See instructions on page 7.

Steam@home Generator Specification Chart

	Model No.	KW	Amps [†] (for 240v/1PH)	Wire Size ^{††}	Water Usage Gallons ^{††}	Dimensions*	Shipping Weight (lbs)
	SAH3000	3.0	13	12	3/8	14 3/8" L x 14 7/8" H x 5 3/16" D	25
SAH4500	4.5	19	10	1/2	14 3/8" L x 14 7/8" H x 5 3/16" D	25	
SAH6000	6.0	25	8	3/4	14 3/8" L x 14 7/8" H x 5 3/16" D	25	

IMPORTANT NOTES:

- Add C1 suffix to Model No. for 240V/1Ph;
- Add B1 suffix to Model No. for 208V/1Ph
- All MrSteam SAH Models are cULus Listed and CE approved.

*Dimensions are for generator only, without plumbing features.

†† Approximate water usage based on 20 minutes of operation.

NOTES: All SAH Generators available in 240v/1PH and 208v/1PH. SAH units are not available in 3 phase. Specify voltage with order.

† Amps are for 240v/1PH rated units.

‡ Wire size (AWG) based on minimum 90°C rated THHN copper conductors.

Refer to the National Electrical Code for other types of conductors.

See page 5 for complete dimensional information.

BEFORE INSTALLING

Carefully inspect the Steam Generator and packaging for shipping damage. Please contact the carrier in the event of shipping damage, please contact the carrier for claim information. Our customer service department can assist you with any missing or damaged parts.

! WARNING Never use damaged equipment, doing so may result in an inoperative or hazardous installation.

IMPORTANT NOTES:

This document contains important safety, operation and maintenance information. Leave this document with the homeowner. Do not discard this document.

IMPORTANT NOTE:

The following general information should be used in conjunction with consultations with an architect, designer and contractor in determining factors necessary in providing a suitable and safe steam room.

Read these instructions before installation or service.

Although this SAH steambath generator has been fully qualified for shipment by MrSteam, 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 sized for the steambath room. Pay particular attention to room volume and construction. If any questions, please refer to Mr. Steam sizing and selection guide on page 2.
- The physical size of the unit, clearance for plumbing servicing, and its distance from the steam room must all be considered before installation.

IMPORTANT NOTE: MrSteam SAH units are intended to be operated with a MrSteam SteamStart® control only, and are to be installed strictly in accordance with the specific instructions contained in this manual.

! WARNING ELECTRICAL SHOCK HAZARD. MrSteam steam generators are intended to be connected to 208V or 240V line voltage and contain live electrical components. All installation and service to be performed by qualified and licensed electricians and plumbers only. Installation or service by unqualified persons or failure to use Mr. Steam parts may void the warranty.

STEAM ROOM GUIDELINES

IMPORTANT NOTES:

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 smooth surfaced flooring is used, provide suitable anti-skid strips or equivalent to prevent user slipping and injury.
4. Walls and ceilings must be constructed of water-resistant, non-corrosive surface, such as tile, molded acrylic, or fiberglass. The ceiling should be sloped to prevent dripping of condensate.
5. Provide a floor drain.
6. No heating, venting or air conditioning devices should be installed inside the steam room.
7. Steam room tile construction information is available from the Tile Council of America, Inc. by purchasing the TCA Handbook for Ceramic Tile Installation. Tel: (864) 646-8453 or www.tileusa.com.
8. Windows that are part of the steam room should be double paned and tempered safety glass.

! CAUTION If acrylic or fiberglass are used as part of the steam room enclosure. Consult with the material manufacture and see pg. 7 for additional details.

9. Limit steam room ceiling height to 8 feet.
10. A peel-off warning label has been provided in the Information envelope (see Warning facsimile below). This label is to be applied to the wall of the installed shower or steam enclosure.

! WARNING The SAH series of steam generators are for residential use only. Commercial or other nonresidential applications void the warranty and may adversely affect product performance.

! WARNING
REDUCE THE RISK OF OVERHEATING AND SCALDING
1. EXIT IMMEDIATELY IF UNCOMFORTABLE, DIZZY OR SLEEPY. STAYING TOO LONG IN A HEATED AREA IS CAPABLE OF CAUSING OVERHEATING.
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5. DO NOT CONTACT STEAM HEAD OR STEAM AT THE STEAM HEAD.
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1. USE CARE WHEN ENTERING OR EXITING THE STEAM ROOM. FLOOR MAY BE SLIPPERY
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USE OF STEAM ROOM IN CONJUNCTION WITH CONSUMPTION OF ALCOHOL CAN BE DANGEROUS AND CAN RESULT IN INJURY THROUGH SLIP AND FALL OR OTHERWISE.
<small>mr.steam® 43-20 34th Street, Long Island City NY 11101 1 800 76 STEAM www.mrsteam.com PIR100278 1.17</small>

Not Actual Size

WATER QUALITY INFORMATION

IMPORTANT NOTE: For optimum results, the water supply should be tested prior to initial startup. If the mineral content exceeds the following recommended limits, various external treatment processes may be used to correct the problem.

NOTE: An analysis of the on-site water must be made by a recognized and reliable water treatment company to ascertain the existing condition and treatment required.

RECOMMENDED FEEDWATER QUALITY

Hardness, ppm	8 – 85 (~0.5 – 5 gpg)
P-Alkalinity, ppm	85 – 410 (~5 – 24 gpg)
T. Alkalinity, ppm	200 – 500 (~7 – 0 gpg)
pH (strength of alkalinity)	8.0 – 11.4

Every 2 months, or more often in “hard” water areas, the manual drain valve should be opened fully flushing out accumulated materials, salts and other particles which are natural by-products of boiling water. See page 13 for draining information. Water quality can affect efficiency or result in boiler damage if neglected. Water contains impurities in solution and suspension. These impurities concentrate within the steam generator tank. The concentration of these impurities increases as more feedwater is introduced into the steam generator tank and steam is produced. If the impurities are allowed to concentrate beyond certain limits, a deposit or “scale” will form on the steam generator tank’s internal surfaces. This deposit can interfere with the proper generator operation and cause generator failure. The concentration of these impurities is generally controlled by the feed water quality and periodically by draining the generator.

LOCATING THE STEAM GENERATOR UNIT

Select a location as near as practical to the steam room.
Typical locations include: closet, vanity cabinet, heated attic or basement.

NOTE: The standard length of the cable for connecting the control to the steam generator is 30 feet. The steam generator and control must be located accordingly. A 60 foot cable (PN 103978-60) is available as a special order part if the installation requires a longer cable.


WARNINGS (ITEMS 1-7)


- DO NOT install steambath generator or plumbing lines in unheated attic or any locations where water could freeze.
- DO NOT install steambath generator inside steam room.
- DO NOT install steambath generator outdoors or wherever environmental conditions may affect the safety and/or performance of the generator.
- DO NOT install steambath generator near flammable or corrosive materials or chemicals such as gasoline, paint thinners, or the like. Installation in areas having high concentrations of chlorine (such as pool equipment room) must be avoided.
- Install steambath generator on a solid and level surface. Keyhole slots are provided for wall mounting. Insure the steam generator is properly secured and level when mounting with keyhole slots.
- Install steambath generator in an upright position only.
- Steam line, safety valve, drain valve, plumbing and steamheads become hot during operation and remain hot after shutdown for a period of time. Provide appropriate protection, including insulating plumbing lines. Avoid plumbing runs and steamhead locations that can come in contact with bathers.

IMPORTANT NOTES: (ITEMS 8-12)

- Install anti-water hammer device as necessary.
- Provide a minimum of (12) inches on the plumbing side and top of the steam generator or as required for servicing. See page 5.
- Provide unions to facilitate installation and disconnection of piping.
- The SteamStart® control may be located inside the steam room or outside of the steam room. See SteamStart Installation section (pg. 12) for specific details.

NOTE: MrSteam Generators (inclusive of the SteamStart® series controls) are CE and UL listed.

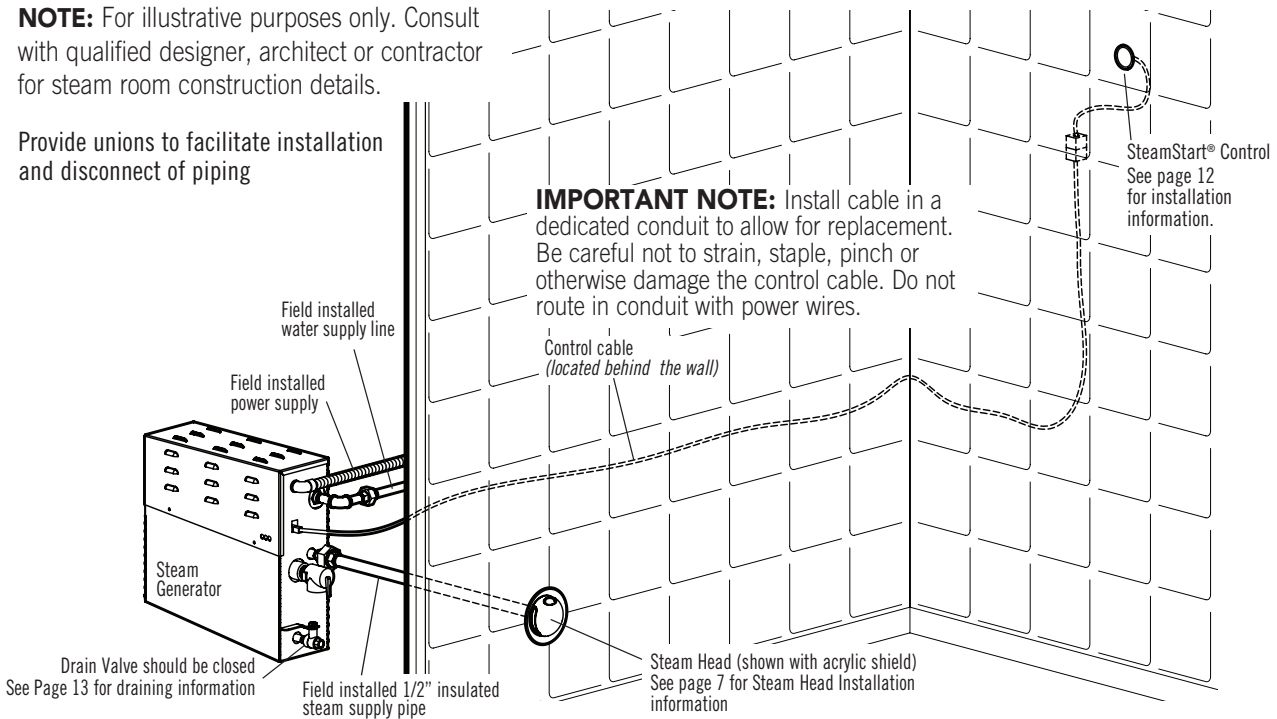
 **WARNING** The Steam@home® steam generator is suitable for operation in ambient temperature not exceeding 45°C (113° F)

 **WARNING** The SAH series of steam generators are for residential use only. Commercial or other non-residential applications void the warranty and may adversely affect product performance. Use only MrSteam SteamStart® control.

TYPICAL MR.STEAM INSTALLATION

NOTE: For illustrative purposes only. Consult with qualified designer, architect or contractor for steam room construction details.

Provide unions to facilitate installation and disconnect of piping

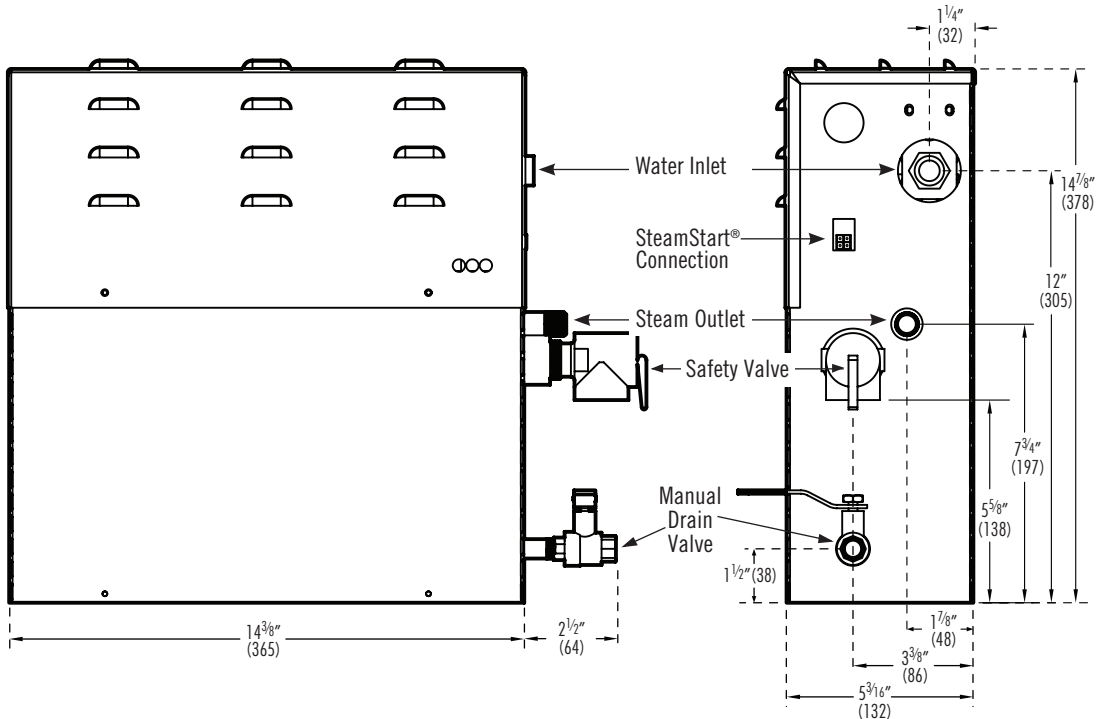


IMPORTANT NOTE: Install cable in a dedicated conduit to allow for replacement. Be careful not to strain, staple, pinch or otherwise damage the control cable. Do not route in conduit with power wires.

SteamStart® Control
See page 12 for installation information.

CAUTION To avoid unintentional steambath operation, do not locate the control where other controls, shower heads, valves, body sprays or similar accessories within the shower could cause confusion or interfere with the MrSteam control's intended use and function.

CAUTION Consult with supplier of acrylic, fiberglass and other non-heat resistant enclosures for recommended steamhead location. Use Acrylic Shield PN MS-103938. See instructions provided with steam shield.



IMPORTANT NOTE: Provide a minimum of (12) inches at plumbing end and top of the steam generator or as required for servicing. Alternately, provide unions as required to facilitate installation and disconnection of the steam generator.

TO AVOID EQUIPMENT DAMAGE DO NOT CONNECT POWER SUPPLY DIRECTLY TO ELEMENT TERMINALS !!!

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY.

IMPORTANT NOTE: The minimum clearance from combustible surfaces is zero all around.

INSTALLATION

PLUMBING

All plumbing shall be performed by a qualified licensed plumber and in accordance with applicable National and local codes.

- Use unions on all pipe connections.
- Use only brass piping or copper tubing as permitted by codes.
- Do not use black, galvanized, PVC pipe or PEX.

WATER SUPPLY (3/8" NPT)

1. Connect hot or cold water line. If hot water line is used water temperature should not exceed 130° F.
2. Provide a shut off valve in the water supply line upstream of the steambath generator.
3. Do not overheat inlet solenoid valve with solder connections. Overheating will damage the valve.
4. Flush inlet water line thoroughly before making connection to unit.
5. Strainer recommended upstream of feed water connection.
6. For best performance water pressure should be 15 to 20 psig.
Reduce pressure as required using a suitable pressure reducing valve.
7. Provide anti-water hammer device as required.
8. Install an approved backflow preventer as required by code.

STEAM OUTLET (3/8" NPT)

1. Do not install any valve in steam line. Flow of steam must be unobstructed.
2. Use 1/2-inch brass pipe or copper tubing from unit to steam head as permitted by codes.
3. Insulate steam line using pipe insulation rated 250° F minimum.
4. Pitch steam line 1/4" per foot towards steam head or steam generator to avoid valleys and trapping of condensate.

IMPORTANT NOTE: Running the steam line down and then up will create a trap blocking the flow of steam.

NOTE: A 1.5" diameter hole in the steam room is required to mount the steamhead.

SAFETY VALVE (3/4" NPT)

Where permitted by local codes, provide an outlet plumbing 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. DO NOT connect a shut off valve or any obstruction in steam supply pipe. DO NOT connect the safety-valve output into the steam line

MANUAL DRAIN VALVE (1/4" NPT)

Unit drains by gravity. See page 13 for draining instructions

DRIP PAN (PN 103867)

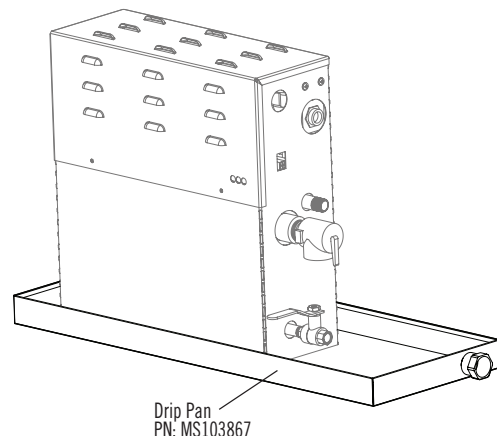
Mr. Steam strongly recommends the use of a drip pan in the unlikely event of a plumbing leak.

Locate the drip pan on a solid level surface and place the steam generator inside the drip pan. Insure the steam generator is level (see page 4 for locating the steam generator).

The drip pan is equipped with an integral female 3/4" NPT fitting.

All plumbing shall be performed by a qualified licensed plumber and in accordance with applicable national and local codes.

Check local plumbing code for receptor, trap and vent requirements. Drip pans drain by gravity.



INSTALLATION OF THE STEAM HEAD

(½" NPT, PN 103937)

WITH ACRYLIC SHIELD (PN 103938)

The Acrylic Shield (PN 103938) is for use when acrylic or other non-heat resistant materials are used for the steamroom enclosure.

CAUTION INSTALLER: Because the steam head and direct steam emissions are very hot, locate the steam head where incidental contact by bather with the steam head or direct steam emission cannot occur.

IMPORTANT NOTE: These instructions are only for use in installations using an Acrylic Shield (PN 103938).

Step 1

Locate steam head at least 12 inches from an adjacent wall or bench and 6-12 inches above floor, except for tub/shower enclosures, install 6 inches above tub top edge.

The steamhead shall be installed with the oil well facing up as shown. Hand tightening is sufficient when teflon or equal pipe thread sealing compound is used.

IMPORTANT NOTE: to preserve steam head finish, do not use wrench or other tools to tighten. DO NOT use abrasive cleansers or chemicals. Use only water with mild soap and a non-abrasive sponge.

CAUTION Consult with supplier of acrylic, fiberglass and other non-heat resistant enclosures for recommended steamhead location.

Step 2

Secure a bronze drop ear fitting to a header and run a ½" copper steam line from the steam generator to the drop ear fitting. Install a temporary nipple (6" or longer) in the drop ear fitting to locate the steamhead after the wall is finished.

Step 3

After the wall has been finished, mark on the nipple where the surface of the wall is. Remove the nipple and measure the portion that was in the wall (the end to your mark). Subtract 1/8" from that dimension and select a brass nipple of that length to finish the installation.

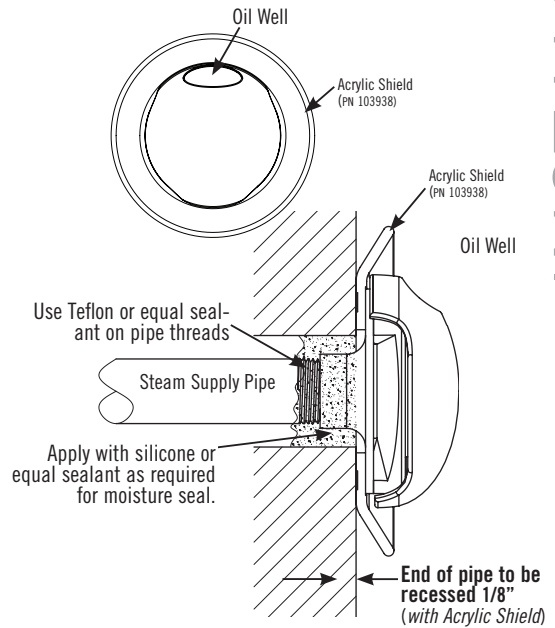
Step 4

Wrap teflon tape around the threads of the new nipple and screw the nipple into the steamhead. Do not use wrenches or tools which would damage the steamhead's finish.

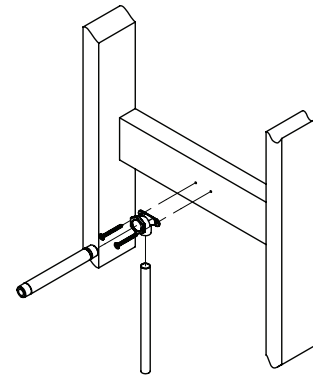
Slide the acrylic shield onto the nipple-steamhead assembly so the steam head sits in the acrylic shield.

Apply clear silicone in the groove on the back of the acrylic shield.

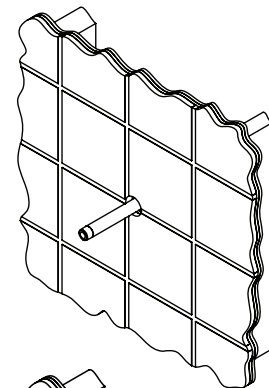
Wrap teflon tape around the threads of the nipple and screw the nipple and steamhead assembly you just made into the drop ear fitting in the wall. The steamhead should be flush with the wall and the well must be facing up. The acrylic shield will be sandwiched between the wall and steam head.



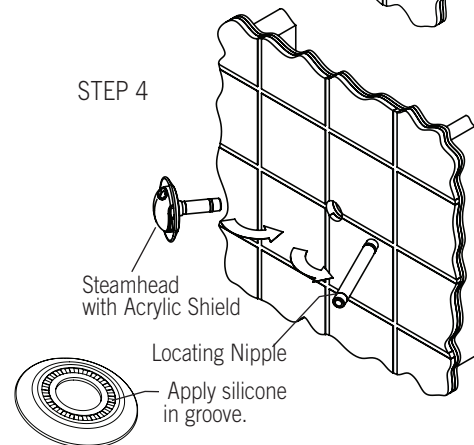
STEP 2



STEP 3



STEP 4



ELECTRICAL

All electrical wiring to be installed by a qualified licensed electrician in accordance with National Electrical Code and local electrical code.

POWER WIRING

See “Field Power Wiring” Diagrams (below)

1. Check power voltage. Use 240V rated unit when supply is greater than 208V. (Most homes have 240V, 1PH service). Use 208V rated unit for 208V power.
2. Use minimum 90°C/300V rated insulated copper conductors only, sized in accordance with National Electrical Code and local electrical code for the current in Ampere Chart. If allowed by codes, NM cable may require a larger wire size than as listed on the chart.
3. Connect suitably sized equipment grounding wire to ground terminal provided.
4. Install a separate circuit breaker between supply and unit. Provide a power supply disconnect within sight of the steam generator or one that is capable of being locked in the open position.
5. Use two-wire supply source and equipment

CHART

Model No.	Max Room Volume (Cu. Ft.*)	KW	Volts†	Phase	AMPS	Wire Size (AWG) for up to 45° C Ambient
SAH3000	65	3.0	208	1	15	12
			240	1	13	12
SAH4500	100	4.5	208	1	22	10
			240	1	19	10
SAH6000	150	6.0	208	1	29	8
			240	1	25	8

*See page 2 for room sizing.
SAH units are not available in 3 phase.

grounding wire. Neutral (white) wire is not required.

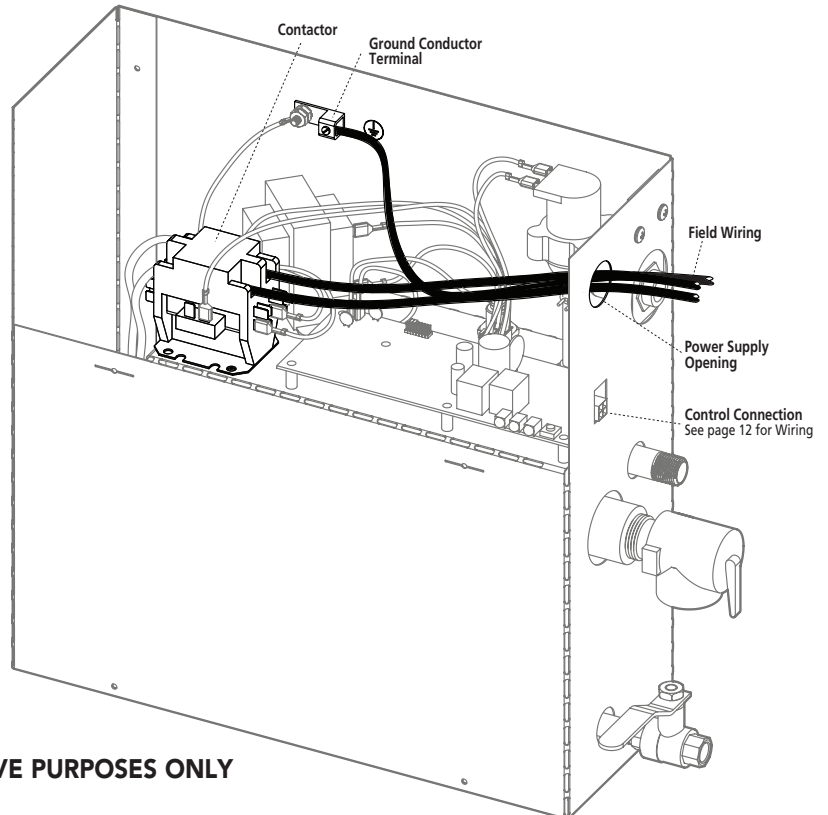
IMPORTANT NOTE: Provide a power supply disconnect within sight of the steam generator or one that is capable of being locked in the open position as permitted by code.

FIELD POWER WIRING

Models SAH3000, SAH4500 & SAH6000

TO AVOID EQUIPMENT DAMAGE DO NOT CONNECT POWER SUPPLY DIRECTLY TO ELEMENT TERMINALS!!!

L1, L2, GROUND TO BE FIELD WIRED



FOR ILLUSTRATIVE PURPOSES ONLY

INITIAL START-UP AND CHECKOUT

1. Turn on control. Follow specific instructions pages 12.
2. Steam will begin to appear in approximately 5 minutes at the steam head.
3. Steam will shut off automatically when 20 minute timer

is up. To shut steam off manually, press SteamStart® again. To clear steam from enclosure area, turn shower on before opening door.

4. If unit does not start and SteamStart backlight does not turn on, then turn breaker off for 2 seconds and try again.

TROUBLESHOOTING

! WARNING ELECTRICAL SHOCK HAZARD. MrSteam steam generators are connected to 240V line voltage and contain live electrical components. All installation and service to be performed by qualified and licensed electricians and plumbers only. Installation or service by unqualified persons or failure to use Mr. Steam parts may void the warranty.

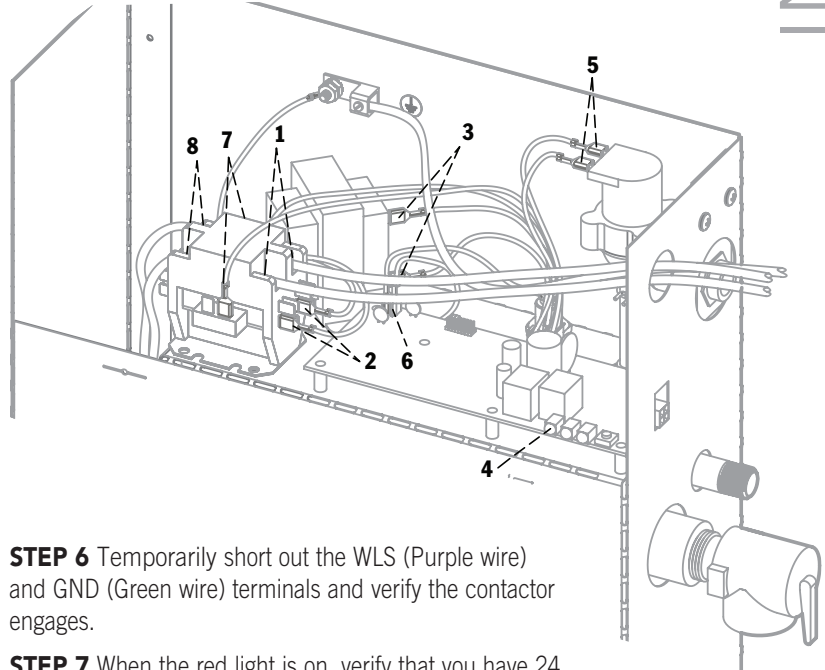
STEP 1 Check your main incoming power to the unit.

STEP 2 Verify the transformer is receiving 208/240 VAC.

STEP 3 Verify that you have 24VAC coming out of the transformer, WHT & WHT/BLU wires, into the board.

STEP 4 Verify that you have the green light on the PC board.

STEP 5 Verify that you have 24 VAC to the water feed solenoid, GRY & WHT/GRY wires (will fill when needed).



STEP 6 Temporarily short out the WLS (Purple wire) and GND (Green wire) terminals and verify the contactor engages.

STEP 7 When the red light is on, verify that you have 24 VAC, RED & WHT/RED wires, to the contactor.

STEP 8 Check to see that you have your main voltage on the load side of the contactor when it is engaged.

SYSTEM STATUS

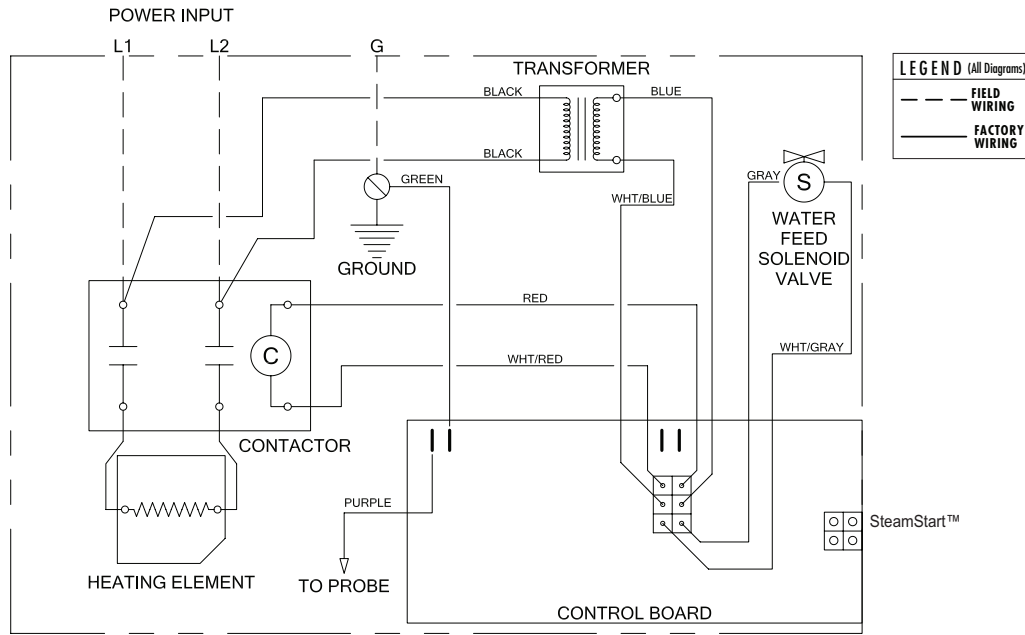
The control STEAMSTART® may blink if the steam generator is not functioning properly.

MEANING	PROBABLE CAUSE	SUGGESTED REMEDY
Water level is not satisfied within 5 min.	Water Supply is off	Turn on Water Supply
	Defective water feed solenoid	Check/replace water solenoid valve
	Water feed probe not functioning	Check/clean probe. Check probe wiring.
	Drain Valve Open	Check/Close drain valve
Incorrect Field Supply Voltage (green light on liquid level control board will be off)	Incorrect voltage supplied to Generator	Supply steam generator with the correct voltage noted on the data plate label.
Button on control is pressed for more than 5 minutes	Debris behind overlay cover	Replace SteamStart button
Liquid Level Control Board malfunction	Memory error in LLCB	Press SteamStart button Replace LLCB if code remains.

SINGLE PHASE 208/240 VOLT WIRING DIAGRAMS

SAH units are not available in 3 phase

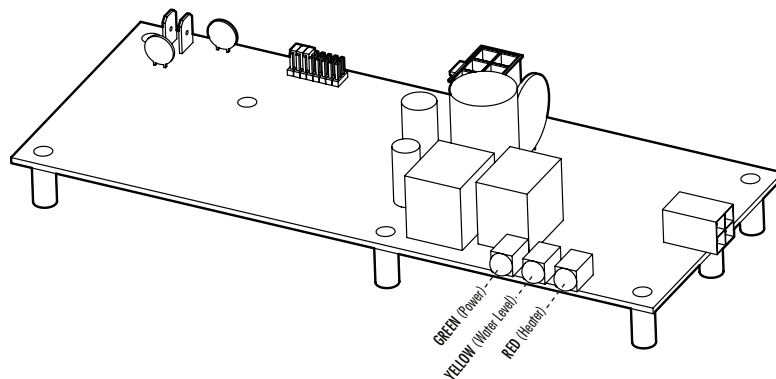
MODELS:
SAH3000
SAH4500
SAH6000



LIQUID LEVEL CONTROL BOARD Explanation of LED Indicators

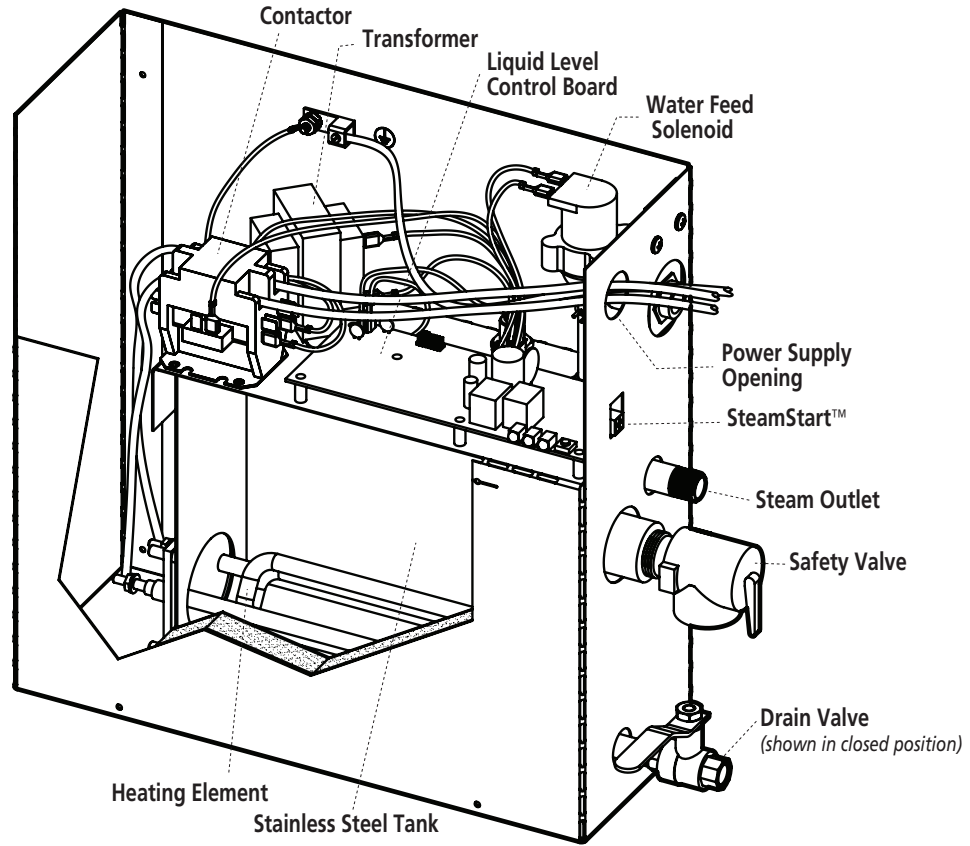
GREEN	LED is ON when there is 208/240 Volt incoming power connected, 24 Volt transformer secondary output and on-board 5 Volt DC control power are present.
YELLOW	Water level indicator-LED is OFF when no water is detected (for more that 5 seconds). ON when water level is satisfactory.
RED	Contactor relay indicator-LED is ON when relay is closed and sending 24 Volts to the contactor coil. (This LED comes ON if the generator is ON.)

Liquid Level Control Board
PN 103975B
(shown without wiring)



MODELS SAH3000, SAH4500, SAH6000

shown with cover removed



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY.

Some components may be omitted or altered for clarity.

Do not use for wiring, repair or other purposes not related to component identification.

REPLACEMENT PARTS LIST

Please call Technical Support at 800-76-STEAM (East Coast)

or 800-72-STEAM (West Coast) for Service Information

Part #	Description
99806	Drain Valve
99297	Safety Valve 15PSI
100479	Water Feed Solenoid Valve with filter
10477-3	Transformer 24VAC
103975B	Liquid Level Control Board
100476-2	Contactors 50A 2-pole
100471-2	Probe Assembly
103938	Acrylic Shield
103978-30	Cable for SteamStart® (30 ft.)
103978-60	Cable for SteamStart® (60 ft.)

STEAMSTART® On/Off Switch

Box Contents:

- SteamStart Control
- Control Cable

INSTALLING THE STEAMSTART® CONTROL

The SteamStart has a 30 foot cable with a Plug & Play connector at both ends. (Diagram 1).

A 60 foot control cable is available (103978-60).

Contact a MrSteam technical representative if the 60 foot cable is required.

! CAUTION To avoid unintentional steambath operation, do not locate the control where other controls, shower heads, valves, body sprays or similar accessories within the shower could cause confusion or interfere with the MrSteam control's intended use and function.

STEP 1 - Diagram 2

Drill a 7/8 inch diameter hole in a preferred wall location. Do not oversize or undersize the hole.

STEP 2 - Diagram 3

Route the cable from the wall to the steam generator. Be careful not to strain, pinch or otherwise damage the control cable.

STEP 3 - Diagram 4

Remove and discard the peel-off paper from the switch housing to expose the adhesive as shown in Diagram 4.

STEP 4 - Diagram 5

Apply silicone (provided with SteamStart control) to the hole in the wall as required to create a moisture seal. Apply silicone to the back of the switch as required to seal grout lines or as required for additional adhesion.

IMPORTANT NOTE: Use care not to apply silicone to the adhesive gasket.

STEP 5

Push cable and switch housing into the hole firmly.

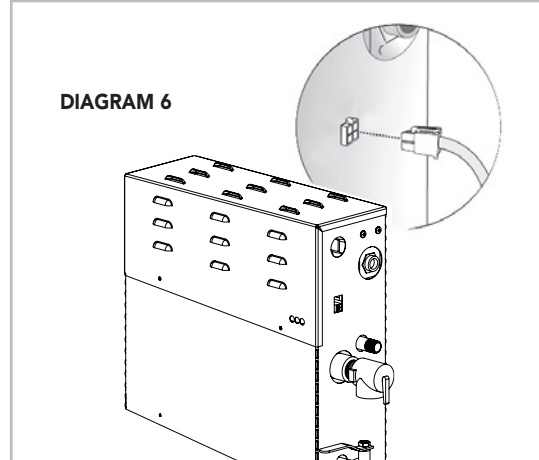
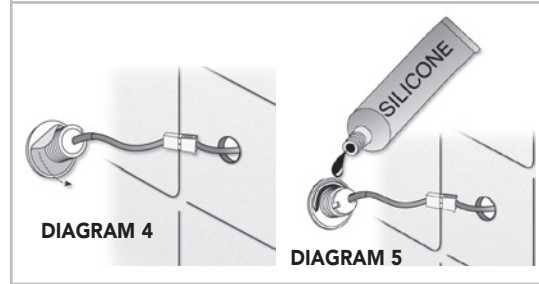
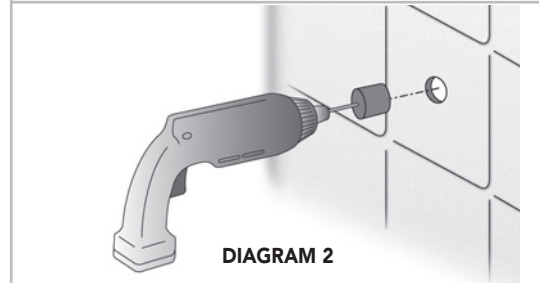
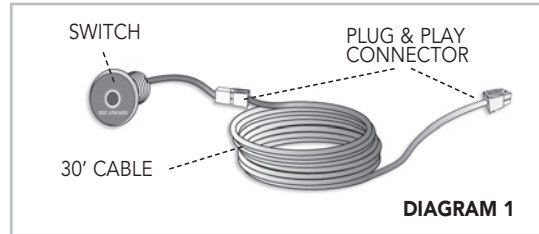
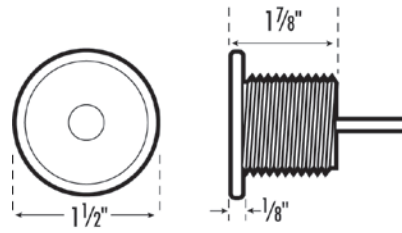
STEP 6 - Diagram 6

Firmly connect the Plug & Play connector to the steam generator connector labeled SteamStart.

NOTE: The connector is keyed and will only connect in one orientation with the tab facing up.

IMPORTANT NOTE: Install cable in a dedicated conduit to allow for replacement. Be careful not to strain, staple, pinch or otherwise damage the control cable. Do not route in conduit with power wires.

DIMENSIONAL INFORMATION



SAFETY AND OPERATING INFORMATION

Use the SteamStart® control to turn the steam generator on. The SteamStart control will only light up when the steam generator is on.

The steam generator will automatically shut off at 20 minutes, to turn the steam generator off manually prior to the automatic shut off, press the button on the SteamStart control.

The SteamStart control may blink if the steam generator is not functioning properly (see page 9).

! WARNING Do not install or use any SteamStart control without reading and understanding the MrSteam steam generator Installation and Operation Manual (PN 100467 Rev 3.12 or higher). Failure to read and understand these instructions may result in an inoperative or hazardous installation.

A peel-off warning label has been provided in the Information envelope. This label is to be applied to the wall of the installed shower or steam enclosure in a conspicuous location.

Do not alter or modify any MrSteam products including the steam generator or SteamStart controls. Doing so may result in an inoperative or hazardous installation and will void the warranty.

IMPORTANT NOTE: Do not operate any SteamStart control with other than a Mr. Steam SAH steam generator. Doing so may result in an inoperative installation. This document contains important safety, operation and maintenance information. Do not discard this document.

Malfunction due to power spikes, lightning, fire, freezing or flooding is not covered under the warranty. Discontinue use of the steam generator or control if the steam generator is damaged or otherwise not functioning.

STEAM GENERATOR MAINTENANCE

Other than periodic draining, maintenance procedures are minimal. Every 2 months, or more often in “hard” water areas, the manual drain valve should be opened fully flushing out accumulated materials, salts and other particles which are natural by-products of boiling water.

! CAUTION Flush a minimum of two-three hours after the control has been turned off to insure that the water has cooled.

! WARNING Draining immediately after a steam cycle may expose user to scalding water and may expose PVC and other piping to high temperature water. Check local codes. The unit will refill automatically when the control is activated again.

CARE TIPS FOR STEAM/START AND STEAMHEADS

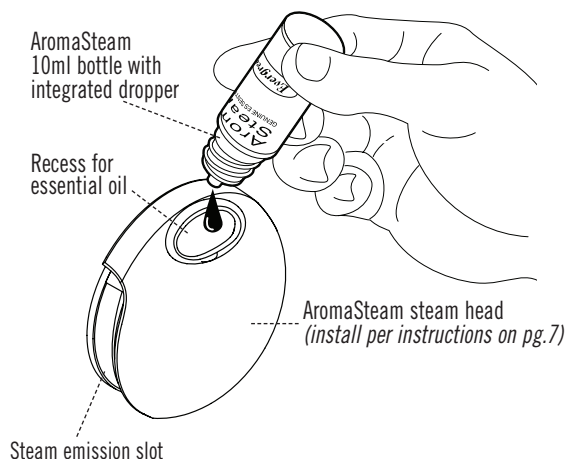
1. Use only mild soap and water on a soft cloth to clean the control and steamhead.
2. Do not use abrasive cleansers

USING MR.STEAM ESSENTIAL OILS

Enjoy AromaSteam essential oils by placing a drop or two into an unheated AromaSteam steamhead as shown in the illustration. Only use MrSteam AromaSteam essential oils in the MrSteam® AromaSteam steamhead.

! CAUTIONS

- 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 MrSteam AromaSteam steamhead 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 for a steam bathing session.
- The bather should exit the steambath **IMMEDIATELY** if dizziness occurs. 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.



! CAUTION Aromatic oils should be added to steamhead before turning on the steambath unit. **DO NOT** add oil during steam bathing or when the steam head is heated.

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

Products, information and specifications are subject to change without notice.

Please call Sales & Support at 1.800.76.STEAM (East Coast)

or 1.800.72.STEAM (West Coast) for more information.

mr. steam®

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PUR 100467 Rev 2.17
