INSTALLATION, OPERATION & MAINTENANCE MANUAL



STEAMBATH GENERATOR SYSTEMS FOR RESIDENTIAL APPLICATIONS



# MODELS: MS-65, MS-90, MS-150, MS-225, MS-300, MS-400 MS-SUPERI, MS-SUPERII, MS-SUPERIII

READ ALL INSTRUCTIONS BEFORE INSTALLING OR SERVICING!

## LEAVE THIS MANUAL WITH OWNER

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### BEFORE INSTALLING

## **IMPORTANT**

Take a minute to read these instructions before installing or servicing. Although this MS steambath generator has been fully qualified for shipment by MR. STEAM, 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 room. Pay particular attention to room volume and construction. If any questions, please refer to MR. STEAM sizing guide enclosed. (see page 9)
- Marble or glass walls or 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 <u>before</u> final installation.



#### **IMPORTANT**

MR. STEAM units intended to be operated with optional accessories, such as digital timer and/or temperature controls, are to be installed strictly in accordance with the specific instructions supplied with these optional accessories and the information contained in this manual.

#### 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-type 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.



## LOCATING THE STEAM GENERATOR UNIT

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

- 1. For best performance locate steambath generator within 20 feet of steam room. See page 9 for guidance if generator is greater than 20 feet from steam room.
- 2. Do not install steambath generator inside steam room.
- 3. Do not install steambath generator outdoors.
- 4. Do not install steambath generator in unheated attic or basement where water could freeze.
- 5. Do not install steambath generator near combustible or corrosive materials and chemicals.
- 6. Install steambath generator on a solid and level surface.
- 7. Install steambath generator in an upright position only.
- 8. Provide access to top and ends of steambath generator for servicing.
- Steam line, safety valve and drain valve become hot during operation. Provide appropriate protection.
- SMART/ONE control can be located inside the steam room or on the outside of the steam room. See SMART/ONE instructions for specific details.





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## INSTALLATION

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#### 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.
- 2. Provide a shut off valve in the supply line.
- 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.
- Use a pressure regulating valve in water line set at 20 PSIG, <u>IF</u> incoming pressure is over 75 PSIG.

#### Steam Outlet - (1/2" NPT)

- 1. Do not install a valve in steam line. Flow of steam must be unobstructed.
- 2. Use 1/2-inch brass or copper pipe from unit to steam head.
- 3. Insulate steam line.
- 4. Pitch steam line to avoid valleys and trapping of condensate.

#### Steam Head

- 1. Locate steam head 6 to 12 inches from floor, except:
  - For tub/shower enclosures, install steam head 6 inches above tub top ledge.
  - When used in shower stall with acrylic or other non-heat resistant floors, install steam head 20-30 inches from floor or use a MR. STEAM steam deflector #103058.
- If steam room is provided with seat(s), locate steam head as far away from seat as possible.
- 3. Install steam head with steam emission slot facing downward.
- <u>CAUTION</u> To preserve steam head finish, do not use wrench or other tools to tighten. Hand tightening is sufficient.

Drain

NOTE: A drain valve is provided to facilitate servicing.

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

Safety Valve - (3/4" NPT)

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

<u>WARNING</u>: To insure proper and automatic safety valve operation, <u>DO NOT</u> connect shut off valve to or plug, safety valve outlet.



#### Electrical

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

## Power Wiring - SEE "INPUT POWER" DIAGRAMS

- 1. Check power voltage. Use 240V rated-unit when supply is greater than 208V. (Most homes have 240V, 1PH service available.)
- 2. Use minimum 90 deg. C/300V copper conductors only, sized in accordance with National and Local electrical codes for the amps in chart below.
- 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).

Model No.	<u>KW</u>	Volts	Amp
MS-65	4.5	208 240	22 19
MS-90	5.0	208 240	24 21
MS-150	6.0	208 240	29 25
MS-225	7.5	208 240	36 32
MS-300	8.5	208 240	. 41 36
MS-400	9.0	208 240	. 44 38
MS-Super I	10.0	208 240	49 42
MS-Super II	12.0	208 240	58 50
MS-Super III	15.0	208 240	73 63

POWER WIRING



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#### CHECK OUT AND OPERATION

- 1. Turn on SMART/ONE.
  - When using standard SMART/ONE control, follow specific instruction sheet provided with controls.
  - When using optional digital timer and/or temperature controls, follow specific instruction sheets provided with controls.
- 2. Steam will begin to appear in a few minutes at the steam head.
  - When the installation includes an optional air switch, press button once and release if no steam appears after 5 minutes.
  - When system is equipped with an "optional room temperature control or digital timer/temperature control," steam will shut off when desired temperature is reached and will automatically resume.
- 3. Steam will shut off automatically when SMART/ONE counts down to zero.
  - To shut steam off manually, push optional air switch once or turn off SMART/ONE.
  - To clear steam from enclosure area, turn on shower before opening door.

#### MAINTENANCE

MR. STEAM 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 which 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! The unit will refill automatically when power is reapplied. In areas of very hard water, a MR. STEAM autoflush system and water treatment is recommended for generator longevity.

The above selection formula for sizing the steambath generator are recommendations only. Because of all the numerous variables in construction, materials, and insulation (values) these sizing instructions and specifications should be considered as guidelines only.

IMPORTANT

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

MR. STEAM 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.

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DI	D LINES (d) THRU (i) TO LINE (c) = (i) TOTAL CUBIC FEET REQUIRED	(j)
	Compare the cubic foot requirements (i) to the selection chart on back of brochure and	select the appropriate model.
	If the total cubic feet required (i) is two times or more the value noted in position (a)	, we strongly recommend that
	you specify either an optional Digital Timer & Temperature Control or a Digital Ter	nperature Control.

It is important to specify the correct voltage. Standard voltages are 240 Volts, single phase and 208 Volts, single

- Increase (c) by 15% for each of the design features noted below ONLY if they describe your steambath 5) installation:
- If the interior wall construction material within the steam area is composed of natural 3) marble, stone, slate, glass block or concrete, place on line (b) the same figure appearing on line (a).

• An extra glass panel in addition to the door

please add 15% for each foot above 8 ft. • If generator is more thant 20 feet from steambath room, add 15% for every 20 feet distance.

· For steambath rooms higher than 8 ft.,

- (b) TOTAL (a) AND (b) TO OBTAIN (c). 4)
- (c)

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

The MR. STEAM model selected depends on the steam room volume and the type of construction used.

Five	Easy	Steps	То	Properly	Select	••	٠	
						the second second		

Multiply the Length X Width X Height to give you the room

· One exterior outside wall

Tile on mud wall

• A cast iron tub

volume = BASIC CUBIC FEET

2)

A

phase.

"The Intelligent Steambath" for Your Home

(d) (e)

(f)

(g)

(h)

(i)

L\_\_\_\_, W\_\_\_,H

(a)