

ROMA STEAM BATH
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INSTALLATION INSTRUCTIONS FOR RESIDENTIAL APPLICATIONS

**MODELS: RS-30, RS-40
RS-400C, RS-500C, RS-700C**

All paperwork and instructions contained in this packet should be given to homeowner after installation and set up of unit is completed.

PLUMBING:

Uncrating, handling, and positioning of this unit should be done with care.

1. The unit must always be installed in an **upright and vertical position**. It has been designed to recess or surface mount in any standard stud wall, below the enclosure if the situation requires, but in any case, should be adequately secured in or to the wall. In determining how high the unit should be placed from the floor elevation, be sure that it is raised high enough (see drawing) **to allow the backflush line to drain downgrade, with absolutely no traps**. The unit may be placed up to **25 feet** away from the steam enclosure without insulating the steam supply line. If the steam supply line is insulated, it can be placed up to **50 feet** from the enclosure. The insulation used for the steam supply line must be rated for at least 212 degrees, Fahrenheit. However, for best performance, it should be placed as close as possible.

As with any water supplied appliance, this unit has the potential to freeze when exposed to prolonged freezing temperatures. Under no circumstances should this machine be installed in area that is exposed to prolonged freezing conditions.

When installing the unit in an attic space, that is not exposed to prolonged freezing conditions, there MUST be a drip pan installed under the machine. DO NOT drain the unit directly onto the drip pan. An 8 inch air gap is required between the end of the drain line and the surface of the drip pan.

Note: The unit flushes under pressure and “splash back” can occur when draining onto a drip pan.

Under no circumstances should the unit be mounted where it is exposed to moisture or weather. The machine must not be exposed to the inside of the enclosure or mounted outdoors.

2. **Water Supply Installation:**

Provide a **cold** water supply. Using 1/4" copper tubing, connect the supply line to the 1/4" compression nut that is provided at the end of the inlet line, below the cut-off valve. **Do not use plumbers' putty, or dope, on this connection. It is essential that the incoming water pressure be less than 80 P.S.I. Do not supply the machine with a water source that has been treated with a Reverse Osmosis (R.O.) device.** The machine will not operate with a water source that has been treated by reverse osmosis.

3. **Steam Supply Line Installation:**

Connect 5/8" OD soft copper tubing from the 5/8" compression nut on the fitting extending out of the top of the steam housing assembly. This is located at the top, left side of the unit (this will be the steam supply line). Extend the tubing to, and connect it with, the prepared fitting on the steam head line. Do not install a valve, or any kind of obstruction, in the steam supply line. Never pick up the steam housing by the fittings or controls. The factory cannot warranty any parts damaged by abuse or improper handling.

4. **Drain Line Installation:**

Provide a drain for the backflush line just below the unit. **THIS DRAINLINE MUST RUN DOWNGRADE WITH NO TRAPS.**

Connect 7/8" OD copper tubing to the 7/8" compression nut located at the bottom of the large solenoid valve in the lower portion of the unit. This is the backflush line. Extend the 7/8" line to the prepared drain as shown in the installation diagram. Be sure that this line runs downgrade with **no traps.** Make a visual check of all connections on or connected to the unit to ensure there are no water leaks.

NOTE: Terminating the drain line into a "trap" will cause a restriction in the units' ability to flush. A "trap" may only be used with a minimum of a 20" standpipe, and the copper tube may only enter the stand pipe a maximum of 2". **There must be a minimum 8-inch air gap between the end of the drainpipe and any standing water above the trap. Under no circumstances should the copper tube protrude far enough into the standpipe to reach the retained water.**

Where a separate drain is not available for the backflush line and the alternate route (see installation diagram) is to be used, it will be necessary to install a tee at the end of the brass pipe extending through the wall. Connect the backflush line, **always running downgrade with no TRAPS,** to the tee fitting first, running **straight** into the line. Then connect the steam supply line into the **side** of the tee. The backflush line then becomes the **primary run** to the enclosure. **It is not recommended that this type of hook-up be made unless a separate drain cannot be provided for the backflush line. If this approach is used, the homeowner must be made aware that 6 to 8 ounces of scalding hot water will empty onto the shower floor upon completion of each use. In addition, the mineral sediment, burned from the water during the operation, will flush onto the floor and could potentially stain the floors' surface.**

The Roma unit, like any other equipment, will require periodic maintenance, primarily cleaning. The amount of service required will depend largely upon the existing water conditions and the frequency of use.

Pressure Relief Valve Installation

Each Roma steam generator is equipped with a pressure relief valve. It is essential that this relief valve be plumbed to an adequate drain source. If this valve is left un-plumbed the potential for a water discharge inside the generator will exist. **Under no circumstances can the relief line be connected to the steam line.** If the pressure relief line and the steam line are connected together the equipment will malfunction. The pressure relief line can be connected to the primary drain (back-flush) line, provided the drain line is not connected to the steam line. It is essential that the drain line has the run of any "tee" used to connect these two lines.

Steam Head Installation:

Install the steam head in the enclosure wall in accordance with the installation drawing as follows: Install a 1/2" threaded brass pipe through the wall of the enclosure.

In a shower:

6" off the floor of the wall where the shower head and water control valves are located.

In a tub area:

3" above the top ledge of the tub, at the foot of the tub.

This pipe should be sufficient length to allow for the steam to attach inside the enclosure and protrude into or through to the other side, as the case may be, with a fitting attached to receive a 5/8" OD copper tube (steam supply line). The steam head **must** be installed so that the flow of the steam is directed down towards the shower floor. **When configuring multi-unit installations, each unit must have a dedicated steam supply line terminating in a separate steam head.**

NOTE:

Depending on the floor surface material used, it may be necessary to elevate the steam head higher. Some surfaces, such as acrylics and fiberglass, may be damaged from the direct flow of steam or condensation. Contact manufacturer to determine if the material is suitable for steam applications.

ELECTRICAL:

Refer to the wiring diagram provided with this packet for all electrical connections. Wiring diagrams pertaining to individual controls are provided with that control.

1. Provide standard electrical breakers in the service panel 10 amps larger than that of the size of the units. **Do not use a GFI breaker for the main service.** The machine will not activate with a GFI as the main breaker.
2. Provide a 4 wire 220v service for the steam unit. The service should be brought into the terminal block provided and must consist of 1 ground, 1 neutral, and 2 hot wires. Attach the ground wire securely to the ground lug, inside the case, to properly ground the unit. The wiring should be properly sized, depending on the model of the unit.

Recommended wiring sizes are as follows:

RS-30	#8	RS-40	#6	RS-400C	#6
RS-500C	#6	RS-700C	#6		

NOTE: This is a recommendation only. Wiring size may vary depending on the length of run and/or local code.

*******IMPORTANT*******

Each Roma Steam Generator has been tested and set during manufacture. However, varying water conditions will result in changes in operating amperage.

To insure proper performance of this equipment, it is absolutely essential that an amperage reading is taken upon installation, and a amperage setting be made prior to regular operation of this machine. Refer to the "Start-up Procedures" section of this packet for proper amperage and water pressure settings.

This equipment has been designed for residential use. It is not recommended for commercial use. An installation in a commercial application could void the warranty.

The Roma unit may be installed up to **25 feet** away from the steam enclosure, in a wall, attic, or closet, without insulating the steam supply line. If the steam supply line is insulated, it can be placed up to **50 feet** from the enclosure. The insulation used for the steam supply line must be rated for at least 212 degrees, Fahrenheit. However, for best performance, it should be placed as close as possible.

Complete installation, adjustment, operating, and service instructions are packed in each unit.

The enclosed detailed wiring and plumbing diagram is shown on the inside cover of all Roma units.

NOTE: A 30 minute timer is provided with this steam unit. It is essential to the longevity of the equipment that the unit backflush at least once per timer cycle. Never re-set the timer unless it has expired on its own or it has been manually terminated prior to expiration.

NOTE: In a commercial application your Roma Steam Bath will require periodic maintenance, or cleaning of the heater assembly. Typically this procedure is performed twice a year, provided a water softener is in place and operable. Contact the Roma service department for a copy of the "Service Instructions" for specific guidance when performing this procedure. Varying water conditions and/or improper upkeep of the water softener may alter the maintenance schedule.

START-UP INSTRUCTIONS

To insure proper performance of this equipment, it is absolutely essential that an amperage reading is taken upon installation, and an amperage setting be made prior to regular operation of this machine.

Each Roma unit is individually tested and adjusted for proper operation before shipment. If a problem has been noted, use the following procedures to locate and/or adjust as needed.

1. Check the electrical breakers in the service panel and on the unit. Be sure they are in the "ON" position. A breaker can "appear" to be in the "ON" position, when in fact it is partially tripped. It is recommended that you strike the breakers firmly back and forth several times, to make sure that they are properly engaged.
2. Remove the bottom cover plate from the unit. This will expose the inlet and outlet control valves.
3. Make sure the water supply is on.
4. Activate the timer and/or the thermostat. Provided they are properly wired (see diagram), there should be a definite "click" heard from the solenoid valves. The unit should come on and steam should be produced in a matter of seconds.

B. If no steam is produced at this stage, recheck the timer and/or thermostat. If they are operating properly, it will be necessary to refer to the service procedures before proceeding.

CAUTION: THIS PROCEDURE should only be performed by trained personnel. The ROMA unit is thoroughly checked and adjusted at the factory, however, due to varying water conditions, **it is absolutely necessary that an amperage reading be taken** and adjustments made, if necessary, to ensure proper operation.

A. Remove the top cover from the unit. This will expose the steam housing and high voltage wiring.

B. Hang an amprobe (Amperage Testing Meter) on either of the two exposed wires that connect the 220v breaker to the electrode posts. The amperage production may fluctuate during the first few minutes of the operation. Make no adjustments until the equipment has been in operation for at least three minutes.

Using the following schedule, if necessary, adjust the amperage accordingly:

1. **Model RS-30** (30 amp) is recommended for use in areas ranging from 70 to 150 cubic feet. The amperage should range from 23 to 26 amps. (25 amps). Approx. 6 - 8 psi. gauge reading.
2. **Model RS-40** (40 amp) is recommended for use in areas ranging from 120 to 275 cubic feet. The amperage should range from 33 to 36 amps. (35 amps). Approx. 16 - 18 psi., gauge reading.
3. **Model RS-400C** (45 amp) is recommended for use in areas up to 400 cubic feet. The amperage should range from 38 to 42 amps. (40 amps). Approx. 20 - 22 psi., gauge reading.
4. **Model RS-500C** (50 amp) is recommended for use in areas ranging from 350 cubic feet to 500 cubic feet. The amperage should range from 43 to 46 amps. (45 amps). Approx. 22 - 24 psi., gauge reading.
5. **Model RS-700C** (60 amp) is recommended for use in areas ranging from 500 cubic feet to 700 cubic feet. The amperage should range from 48 to 52 amps. (50 amps). Approx. 24 - 26 psi., gauge reading.

To **increase** the amperage, unlock the regulating valve. This can be achieved by "slightly" pulling the knob towards you. **Do not over-pull the knob.** If the knob is pulled off the valve will become inoperable. Turn the handle on the regulating valve "in" or "clockwise" very slowly, no more than an 1/8 of a turn at a time. Allow one minute of operation for a correct amp reading.

To **decrease** the amperage, do likewise with the above, but turn the handle "out" or "counter clockwise".

The amount of steam provided will increase as the water flow is increased, which causes the amps to rise. Steam and amps will decrease as the adjustment on the regulating valve is reversed.

If the recommended amperage cannot be obtained, it will be necessary to refer to the service instructions.

Warning: To avoid burns, do not allow the body to touch the steam head or the main flow of steam as it directly enters the enclosure.