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GROBET USA®

INSTRUCTION MANUAL
STEAM CLEANER

Carbon Steel Models

Model 24.900P	110 Volt Solid State Low Water Cutoff Switch
Model 24.900PW	110 Volt Solid State Low Water Cutoff Switch, with Wand
Model 24.900PR	110 Volt Solid State Low Water Cutoff Switch, Refurbished
Model 24.900PX	220 Volt Solid State Low Water Cutoff Switch

DO NOT USE YOUR UNIT UNTIL YOU HAVE READ THIS!

CAUTION: Not following instructions can result in injury to personnel

NOTE: Not following instructions can result in damage to equipment

CAUTION

READ ALL INSTRUCTIONS BEFORE INSTALLATION AND OPERATION

CONNECTION TO A BRANCH CIRCUIT WITH OVERCURRENT PROTECTION RATED 20 AMPS OR LESS

INSURE THAT BLOWDOWN DRAIN PIPING IS PROPERLY SIZED AND INSTALLED

DO NOT OPEN FILL INLET WHILE IN OPERATION

KEEP EVERYONE CLEAR OF SAFETY VALVE AND STEAM DISCHARGE WHEN UNIT IS IN OPERATION

VALVES AND PIPING BECOME VERY HOT DURING OPERATION. DO NOT TOUCH HOT PARTS

STEAM CLEANER IS NOT FOR SPACE HEATING PURPOSES
YOUR STEAMER REQUIRES MAINTENANCE. READ AND FOLLOW ALL INSTRUCTIONS.

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The pressure is too high, and the safety valve opens to release the pressure.

The control thermostat is factory preset. If for some reason it requires adjustment, remove the black knob by firmly pulling it straight off of its stem. The stem is hollow, and contains a small adjustment screw with a straight screw driver slot. Using a small, straight screwdriver, turn this adjustment screw a quarter turn to the right, (clockwise). Replace the black knob, being careful to line it up properly with the groove in the sterm. Repeat this procedure until the pressure does not exceed 75 PSI on the gauge with the control in the full hot, or ten (10) position. (Photo)

If your unit leaks, particularly at the sight glass.

Refer to the procedure under MAINTENANCE for tightening the sight glass.

TROUBLE SHOOTING GUIDE

(800-847-4188 for Technical Support)

Your unit will not heat up.

Insure the unit has power. The green light should be on if power is reaching the steamer. If the green light is not on, check the supply circuit for power. Check plugs and cords for damage. If problem continues, contact Grobet USA for technical support.

Low water indicator light stays on.

The low water indicator light is controlled by a conductance probe inside the pressure vessel. If hard water is used in the unit, over time deposits may cause the probe to short out. It may be possible to correct these situations by following the cleaning procedure. CAUTION. Refer to note 9 under Set Up and Operation before attempting to flush your unit.

Your unit will not fill.

Refer to note 4 under Set Up and Operation. All the indicated valves must be positioned properly to allow air to escape and water to enter the pressure vessel. Remember, you must have power to the unit to operate the solenoid valve. If both the fill valve and the flow control valve are open and you have power to the unit with the foot pedal depressed, if it still will not fill it is probably due to a malfunctioning solenoid valve. In this case the unit will require servicing.

The safety valve leaks.

The safety valve is factory preset, and should not leak unless it has been popping off or opened. In either case, momentarily opening the valve with the unit under pressure will clean the seat. Let the valve snap back to the closed position. CAUTION: Discharging steam under pressure is dangerous. Insure a clear path for the discharge before utilizing this procedure. Check that the pressure does not exceed 75PSI. (Refer to the next procedure.)

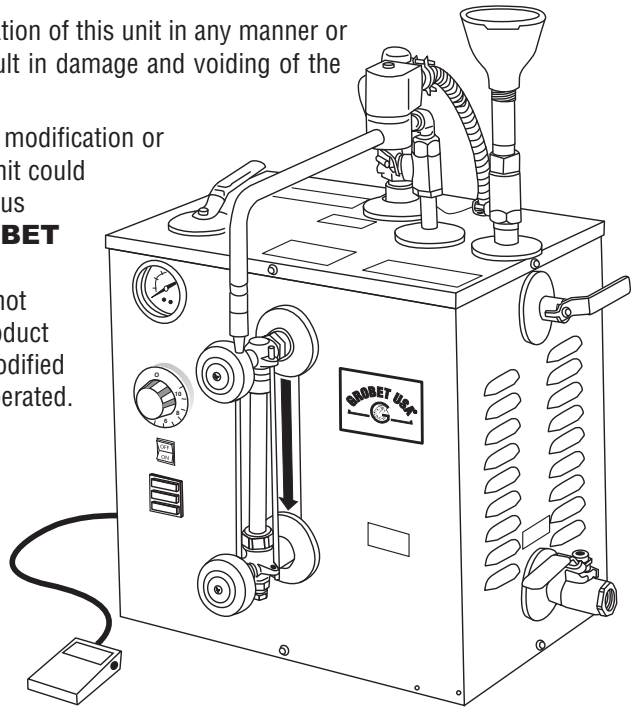
DESCRIPTION

Your Grobet steamer is a hand-filled 2.2 gallon boiler designed to operate at 75 Lbs pressure. It has an ASME certified steam vessel, is electrically heated, and controlled through the use of hand and electrically operated valves. It has a low-water cutout feature in accordance with applicable fire codes. The unit produces a flow of steam for cleaning small items such as jewelry when a solenoid valve is actuated by a foot pedal. The unit is safe when installed, maintained, and used in accordance with these instructions.

Your Grobet steamer comes standard with an enclosed cabinet, pressure gauge and pressure gauge isolation valve, solenoid steam valve with backup manual valve, fill funnel and tube with manual valve and automatic check valve, temperature control, blow down/drain valve, preset pressure relief valve, water level sight gauge with isolation valves, control indicator lights, and foot pedal control switch.

NOTE: Modification of this unit in any manner or misuse may result in damage and voiding of the factory warranty.

CAUTION: Any modification or misuse of this unit could create a dangerous situation. **GROBET USA**® and its distributors are not liable for any product that has been modified or improperly operated.



INSTALLATON

Use black pipe, NOT galvanized pipe, for steam piping for the blow down/drain system. A qualified steamfitter should complete the installation, following applicable codes.

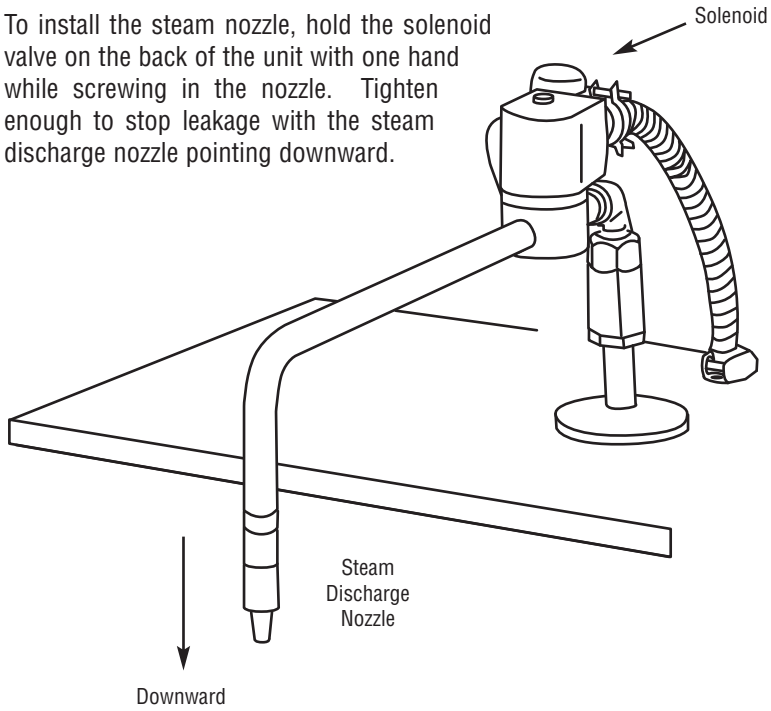
All electrical circuitry must meet national and local codes.

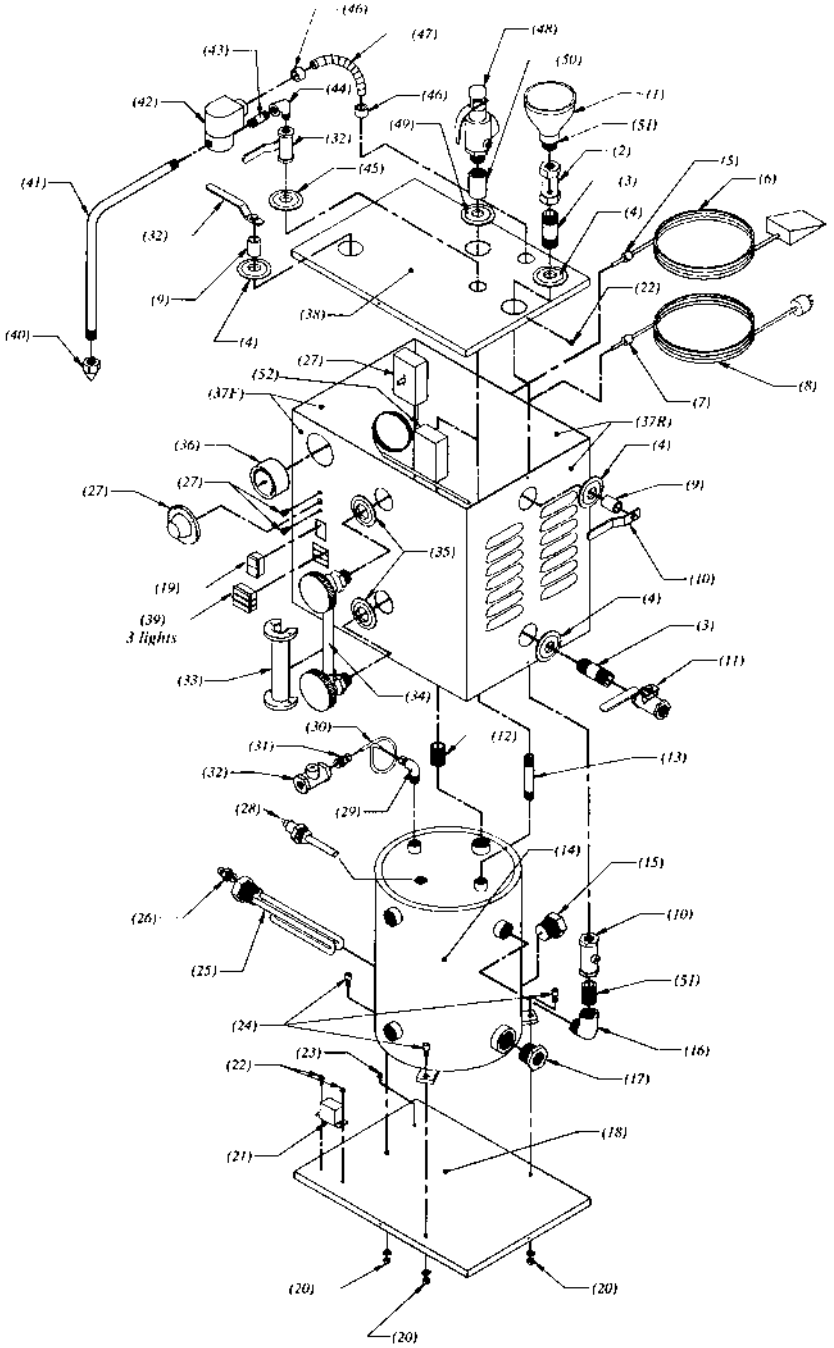
The blow down/drain system discharges a large volume of hot water and steam. It must be plumbed into appropriate piping. Consult applicable codes.

If the preset pressure is exceeded, the safety valve will relieve by discharging hot steam. Make sure the valve is pointed toward the back of the unit, and away from any other occupied location, or walk way, and that the discharge will not bounce off of a surface back toward the operator or any person.

The foot pedal must rest on a dry surface. Electrical components mounted on or within the cabinet must be protected from moisture and steam.

To install the steam nozzle, hold the solenoid valve on the back of the unit with one hand while screwing in the nozzle. Tighten enough to stop leakage with the steam discharge nozzle pointing downward.





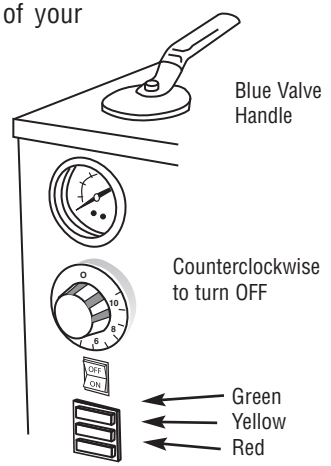
PARTS LISTING

ITEM	PART #	QTY.	DESCRIPTION
1	23.738	1	Funnel
2	23.753	1	In line check valve – 1/2"
3	24.904	2	Nipple – 1/2" x 3"
4	23.758	4	Escutcheon – 1/2"
5	HP20110	1	Plastic strain relief (Foot pedal cord)
6	23.719G9	1	Foot pedal with cord
7	23.755	1	Plastic strain relief (Power cord)
8	WHC13	1	Power cord with molded plug – 6'
9	23.731	2	Extension for ball valve – 1 1/4"
10	23.722G	1	Ball valve – 1/2"
11	24.916	1	Ball valve with safety lever – 1/2"
12	24.905	1	Nipple – 1/2" x 1 1/2"
13	24.907	1	Nipple – 1/4" x 3"
14	24.90004	1	Pressure vessel
15	24.908	1	Brass plug – 1"
16	24.902	1	Street elbow – 1/2"
17	24.903	1	Hex bushing – 1" x 1/2"
18	24.90006B	1	Cabinet base
19	47.03101	1	Switch On/Off
20	331-1061	3	Nut – 1/4" – 20
21	24.935	1	Power relay 110 volt
	24.935X		Power relay 220 volt
22	23.764	16	Hex washer head screw – #10
23	21800081	1	Green grounding screw
24	24.931	3	Bolt – 1/4" – 20 x 5/8"
25	24.939	1	Heating element 110 volt
	24.939X		220 volt
26	24.922	1	Ferrule fitting – 1/8" x 3/16" (Not on all models)
27	24.921A	1	Thermostat control
	24.921K	1	Thermostat Knob
28	24.736	1	Probe
29	24.924	1	Ferrule fitting, – 90 degree – 1/4" x 3/16"
30	23.740	1	Copper tubing – 3/16"
31	24.923	1	Ferrule fitting – 1/4" x 3/16"
32	24.914	2	Ball valve – 1/4"
33	24.920	1	Sight glass guard
34	24.913	1	Water gauge with extended shank
35	24.927	2	Escutcheon – 3/4"
36	23.714G	1	Pressure gauge
37F	24.90007W	1	Cabinet wrap
37R	24.90007E	1	Cabinet end
38	24.90008T	1	Cabinet top
39	24.911G	1	Green indicator light
	24.911A	1	Amber indicator light
	24.911R	1	Red indicator light
40	23.760	1	Steam nozzle tip
41	24.90901	1	Steam nozzle
42	24.925	1	Solenoid valve 110 volt
	24.925X		Solenoid valve 220 volt
43	24.912	1	S.S. Adapter – 1/4" x 1 1/2"
44	24.910	1	Street elbow – 90° – 1/4"
45	23.757	1	Escutcheon – 3/8"
46	24.929	2	Romex connectors
47	24.928	1	Greenfield conduit – 3/8"
48	24.917	1	Safety relief valve
49	24.926	1	Escutcheon – 1"
50	24.906	1	Coupling – 1/2"
51	24.901	2	Close nipple – 1/2"
52	24.737	1	Circuit Board
N/P	24.93402	1	Wire harness
N/P	BX24901	1	Shipping box with inserts

OPERATION

1. Your steamer operates best with tap water because the low water sensing probe circuitry requires conductance through the water. This makes it important to drain or blow down the vessel regularly, as often as weekly under continuous usage. Otherwise, concentrations of minerals will build up as you boil off the pure water that becomes steam. ALTERNATE PROCEDURE: In areas where tap water is extremely hard, users can utilize distilled water by adding approximately an ounce of tap water to each fill. This will provide adequate ionization of the water to keep the probe circuitry working. Weekly draining or blow down is still recommended to extend the trouble-free life of your unit.

2. The blue valve handle located above the pressure gauge should be left in the "on" position. It is not normally necessary to close this valve unless the gauge malfunctions or is broken.



3. Plug the unit into a grounded outlet. Flip the power switch to the on position. The green light should come on indicating power to the unit. This is always on when the unit is plugged in. If the yellow low water light comes on, turn the black pressure setting knob all the way counterclockwise.

4. Open the fill valve on the side of the unit. To allow air to escape during filling, open the flow control valve below the solenoid, and press the foot pedal to open the solenoid valve. Holding the food pedal depressed, fill the unit through the funnel until the water reaches the proper level in the sight glass, approximately 3/4 full. DO NOT OVERFILL. Then, close the fill valve, close the flow control valve, and release the foot pedal.

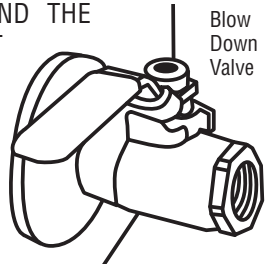
5. Turn the heat control clockwise to ten (10) to start the heating cycle. The red light will come on indicating that the unit is heating. The red light will go out when the unit is up to temperature. The initial heat-up time may take approximately one (1)hour depending on the temperature of the fill water. A setting of ten (10) will produce about 70-75 PSI of steam pressure. Obviously, lower settings will produce lower pressures.

6. Turn the flow control valve located below the solenoid valve so that the handle points up. This valve controls the volume of steam.(Photo)

7. Press the foot pedal to release steam through the nozzle. The initial burst of steam will normally be wet due to condensation build-up. This will rapidly clear, giving you the hot, dry steam desired for effective cleaning.

8. To refill, let the unit cool down to room temperature and release all steam pressure using the pedal controlled solenoid valve. Follow steps 4, 5, 6, and 7. A yellow light indicates low water. The unit will not function if the water is low.

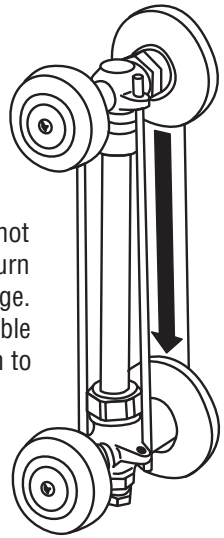
9. A blow down valve is located at the base of the unit for draining, flushing, and cleaning. UNLESS THE UNIT IS PROPERLY CONNECTED TO BLOW DOWN DRAIN PLUMBING, DO NOT OPEN THIS VALVE UNDER PRESSURE. THE UNIT MUST BE COOL AND THE PRESSURE RELIEVED USING NORMAL FOOT PEDAL OPERATION BEFORE OPENING THIS VALVE. NOT FOLLOWING THIS PROCEDURE COULD RESULT IN PERSONAL INJURY. If the unit is connected to proper plumbing, the blow down valve may be used during cleaning procedures.



MAINTENANCE

CAUTION: Repairs must be made by experienced personnel. Insure that the boiler is cold, all pressure has been released, and electrical power has been removed.

Leaks around fittings are to be expected after shipping and as your unit "runs in." You may have to tighten the packing on the valves for the sight glass after the unit has been operated for a time, as well as the nuts above and below the sight glass. Tighten these fittings only with the unit completely cool, and after all pressure has been released. Do not tighten the sight glass fittings more than one-quarter turn at a time. Overtightening them will result in breakage. Overtightening the valve packings may make it impossible to turn the valves. Tighten all fittings just tight enough to stop leakage. You may have to tighten fittings a little at a time between heat cycles until all leakage is stopped. You may also find it necessary to tighten the steam delivery tube a turn after you have placed your unit into operation.



RECOMMENDED CLEANING: Regular use of clean water will help keep the probe on the low water cutout circuits free of performance-reducing build up. Cleaning with white vinegar on a monthly basis is recommended, however, where the water source is high in minerals, especially calcium, using white vinegar to clean the unit once a week is recommended. This will keep your unit's pressure vessel clean, as well as the components within the pressure vessel. The regular cleaning will also keep the water level sensing components clean. It is not normally necessary to blow down the unit, but if it is properly piped into a drain, blowing the unit down after shutting it off and letting the pressure drop to 5 PSI will flush out the vessel. Refer to note 9 under OPERATING instructions.

REPLACING GAUGE GLASS: Depending on frequency of use and water conditions, it may be necessary to replace your sight glass from time to time. If this becomes necessary, obtain a replacement sight glass and new rubber gaskets from Grobet USA.

CAUTION:

Prior to beginning this procedure, insure that the unit is completely cool, and that the pressure has been relieved using the solenoid controlled steam valve.

Disconnect the unit from electrical power.

Close the valves on top and bottom of the sight glass assembly.

Remove the two vertical rods that retain the plastic guard over the front of the sight glass.

Remove the plastic guard from the front of the sight glass.

Loosen the brass packing nuts from the top and bottom of the sight glass.

Gently slide the sight glass upward until it clears the bottom packing nut.

Swing the sight glass to the side at the bottom until it clears the bottom packing.

Lower the sight glass from the top of the assembly.

Reverse these steps to install the new sight glass. Refer to the sight glass tightening procedure under the MAINTENANCE section of this manual.